

Does Bankruptcy Law Prevent Internalization of Environmental Costs:

Evidence from China

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Abstract:

The ‘polluter pays’ principle has been implemented by several pieces of environmental legislation in China as a means to confront the issue of liability in the case of bankrupt polluters. The principle requires those responsible for environmental damage or imminent threats of damage to bear the necessary costs of remediation and prevention. However, in practice, the principle has been rendered relatively ineffective due to current Chinese bankruptcy law. Environmental costs of bankrupt polluters are paid by public funds, which contradicts the polluter pays principle. The current research on Chinese jurisdiction and environmental liabilities in bankruptcy law has mainly focused on the importance of environmental liabilities and their significance in the context of bankruptcy. However, the existing research lacks empirical case studies and fails to address important matters, such as identifying who bears the environmental costs of bankrupt polluters or providing practical solutions for realizing internalization of environmental costs in bankruptcy cases. To fill this research gap, this paper considers several detailed case studies to examine real-life scenarios where bankrupt polluters are involved. On analyzing these cases, public funds are found to have paid for environmental costs of bankrupt polluters, contaminated sites are often left unremediated following bankruptcy, and in some cases, bankruptcy law has become a tool for some companies to escape their environmental responsibilities. This paper concludes with recommendations for reform of Chinese Enterprises Bankruptcy Law.

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Key words: Environmental Liabilities, Bankruptcy Law, Chinese Law, Polluter Pays Principle, Chinese Policy

1. Introduction

In 2019, the Intermediate People's Court of Qiqihar City, Heilongjiang Province, China declared Heihua Co., Ltd (Heihua) bankrupt.¹ Despite the fact that Heihua had made great contributions to economic development in the Heilongjiang province, it was also to blame for discharging vast amounts of smoke, dust and heavy metals into the surrounding land and air; which caused subsequent environmental damage, both in terms of land and air pollution, as well as water contamination.² Bankruptcy was attributable to these environmental issues, as well as the firm's ageing equipment, yet, the aforementioned environmental issues were not resolved following the completion of the bankruptcy process; with the soil and groundwater at the former Heihua site containing a quantity of heavy metals far in excess of national standards, the site was later identified as being heavily contaminated land.³ It is understood that clean-up and restoration of the contaminated site is in the public interest.⁴ Nevertheless, as the liquidation process of the bankrupt firm has since concluded, it follows that any future rectification of consequential environmental damage stemming from the Heihua site must be covered by public funds.

¹ See 黑龙江黑化集团破产文书 [Bankruptcy Announcement of Heilongjiang Heihua Group], 人民法院公告 [The People's Court Announcement].

<https://rmfygg.court.gov.cn/web/rmfyportal/noticedetail?paramStr=1012802340102213>.

² See 黑龙江黑化股份有限公司 2000 年年度报告 [Annual Report of Heilongjiang Heihua Co., Ltd 2000].

http://www.sse.com.cn/disclosure/listedinfo/announcement/c/600179_2000_0.pdf.

³ See 关于富拉尔基区黑龙江黑化集团有限公司原厂区土壤污染状况调查结果显示 [Public announcement of the detail findings on the soil contamination status of the former plant of Heilongjiang Heihua Group in Fularji District], 富拉尔基区人民政府 [Council of Fularji District, Qiqihar City], Dec. 16 2021

<http://www.flej.gov.cn/flej/c101882/202112/f64b4fe3c69a48b1a8272ab2896fa4e3.shtml>.

⁴ *Id.*

This particular case highlights a common issue, being that, the polluting company will be rendered bankrupt with several of its environmental issues still outstanding; thus passing any such liability on to the public – in other words, the cost of environmental liability will be borne by public funds.

Based on the current environmental legal framework in China, both the tort chapter of the Civil Code 2020 and the Environmental Protection Law 2014 apply the ‘polluter pays’ principle, which requires polluters to assume responsibility for the cost of environmental clean-up and/or its remediation and restoration.⁵ However, the polluter pays principle is being challenged by Chinese Enterprises Bankruptcy Law (EBL).

In the context of EBL, environmental liability is classed as a general, unsecured liability in the order of distribution during the winding up process. In most cases general, unsecured claims face difficulty in being paid out in the case of winding up, which results in the externalization or ‘transfer’ of environmental costs from the bankrupt polluter to society.⁶ These costs are known to economists as negative externalities.⁷

If such environmental costs were to be externalized to society, it would not be fair to the ordinary citizens that would be made to foot the bill on behalf of the bankrupt firm.⁸ This externality arises from the fact that those who cause damage to the environment benefit more from their actions than others because the cost of the damage, such as the government-funded clean-up, and the reduction in environmental quality, is not borne by individuals in proportion

⁵ See 民法典 2020 [Civil Code 2020], art. 1229 -1231, 1233-1235, 环境保护法 [Environmental Protection Law 2014], art. 59 and 64.

⁶ See Mackie Colin, Corporate Structures and Environmental Liability under EU Law (2013) (Ph.D dissertation, University of Aberdeen) (on file with author), at 3.

⁷ *Id.*

⁸ Zahar Alexander, *Implementation of the polluter pays principle in China*, 27 Rev. Eur. Comp. Int. Environ. Law. 293, (2016) 294.

to their responsibility for the damage, but affects everyone indiscriminately.⁹ Likewise, this would render environmental costs free for those polluting firms otherwise responsible for any damage caused, since it can simply be externalized to wider society in the event of bankruptcy – in other words, companies may be incentivized to seek bankruptcy in order to avoid any such environmental responsibility.¹⁰ As such, if the externality of environmental costs to society was altered so as to charge the respective polluters for the environmental costs they bear responsibility for, it would likely improve social justice with respect to post-bankruptcy liabilities.¹¹

As an emerging economy, China has yet to gain the relevant experience necessary to effectively address the environmental liability of bankrupt polluters. Therefore, this paper examines how Chinese law treats environmental liabilities in bankruptcy proceedings. The future direction to reform EBL so as to internalize environmental costs in bankruptcy proceedings will also be proposed in this paper.

2. The main features of the China Enterprises Bankruptcy Law 2006

2.1 The advances of the EBL 2006

The current bankruptcy law, China Enterprise Bankruptcy Law 2006, was enacted in 2006, taking effect on 1st June 2007. Compared with the previous bankruptcy law, China Enterprise Bankruptcy Law 1986 (For Trial Implementation) (the EBL 1986), the EBL 2006 is more comprehensive and sophisticated. The EBL 1986 consists of only 6 chapters and 43 provisions, which primary deal with the bankruptcy of state-owned enterprises. By contrast, the EBL 2006 is more inclusive and upholds many contemporary bankruptcy principles.

⁹ *Id* at 294.

¹⁰ *Id* at 294.

¹¹ *Id* at 295.

First, the EBL 2006 applies to a wider range of business entities. The old EBL 1986 can only be used by state-owned enterprises, whereas the new EBL 2006 is open to almost all types of enterprises, including state-owned and private companies. Article 2 of the EBL 2006 states that ‘where an enterprise with independent legal personality fails to pay its debts that are due, or where such an enterprise’s liabilities exceed its assets, it may be liquidated according to the relevant provisions of this law’.¹² This means that the EBL 2006 is intended to create an equal access to bankruptcy law for all enterprises.

Second, the EBL 2006 establishes, for the first time in China, the profession of bankruptcy administrators. Under the EBL 1986, it was routinely a government-organized liquidating committee full of officials serving as the liquidator in the bankruptcy of state-owned enterprises. Therefore, there is little room for professionals, like accountants and lawyers, to play a role. The government involvement in the bankruptcy of state-owned enterprises was criticized for violating market norms.¹³ To build a market-based corporate bankruptcy system, the EBL 2006 relies on independent and qualified bankruptcy administrators to manage the property of bankrupt companies.¹⁴ Under the EBL 2006, many law and accounting firms have been qualified to practice corporate bankruptcy.¹⁵ However, the Article 24 of EBL 2006 still retains the liquidation committee organized by the government, as well as qualified bankruptcy administrators, who will be appointed as bankruptcy representatives. Although lawmakers aim at a committee formed by the government to solve the issue of bankruptcy of state-owned

¹² See 中华人民共和国企业破产法 2006 [PRC Enterprises Bankruptcy Law 2006], art. 2.

¹³ See Charles D. Booth, *The 2006 PRC Enterprise Bankruptcy Law: The Wait Is Finally over*, 20 SAclJ 275 (2008) 285.

¹⁴ See Zhang Zinian, *Resolving Corporate Insolvencies in China: The Gap between Law and Reality*, 27 U. MIAMI INT’L & COMP. L. REV. 373 (2020) 371.

¹⁵ See Enterprises Bankruptcy Law, *square note* 12, art. 24.

enterprises, this is not clearly defined in EBL 2006, and some scholars concern that it may lead to confusion or abuse in practices.¹⁶

Third, the EBL 2006 embraces international best practice by promoting corporate rescues. Chapter 8 of the EBL 2006 specifies how a corporate reorganization/rescue procedure can be conducted to avoid devastating company liquidations.¹⁷ Reorganization means that the bankrupt debtor does not need to enter into the liquidation proceedings; on the contrary, a rescue plan will be pursued so as to revive a beleaguered company.¹⁸ This rescue mechanism is under the guidance of the court and is designed to ensure that the debtor and its creditors reach an agreement on the reorganization plan. This means that the bankruptcy law not only facilitates companies to exit the market but also to prevent viable companies from being unnecessarily liquidated. The reorganization mechanisms give an opportunity to financially bankrupt but economically viable companies to seek rehabilitation.¹⁹

Fourth, the EBL 2006 sets up the clear rules to respect and honor securities. Under the EBL 1986, employee claims trump securities.²⁰ And this inevitably harms the interests of secured creditors, most of them banks, and is not in line with the trend of international bankruptcy law. The new EBL 2006 gives priority to secured claims in bankruptcy proceedings: secured assets must be used to pay secured creditors first, and if there is a balance after fully paying secured creditors, the balance can go to the general property of the company which is to meet the claims of all unsecured creditors, including employees.²¹ Especially for Chinese banks, they are the

¹⁶ See Zhang zinian, square note 14, at 378.

¹⁷ See Adriaanse Jan, *The Uneasy Case for Bankruptcy Legislation and Business Rescue*, 2 NIBLeJ 119 (2014) 119.

¹⁸ See Emily Lee, *The Reorganization Process under China's Corporate Bankruptcy System*, 45 INT'L LAW. 939 (2011) 940.

¹⁹ *Id* at 941.

²⁰ See 中国企业破产法 (试行) 1986 [Enterprises Bankruptcy Law (trial) 1986], art 37.

²¹ See Enterprises Bankruptcy Law, square note 12, art 109.

major creditors for Chinese companies.²² The bank charges the company's assets as security and then provides the loan. If secured creditors are not protected in the event of bankruptcy, it means that these losses are passed on to the bank.²³ Obviously, the Chinese legislators have recognized the importance of securities to support the sustainability of China's banking sector.²⁴

2.2 The rescue procedure: reorganization

Reorganization is the main rescue procedure under the EBL 2006 Chapter 8. According to the provisions of the bankruptcy law, the debtor or its creditor may file directly to the court for reorganization.²⁵ To promote more rescues, even if there is an involuntary liquidation, the company or its shareholders²⁶ can request the court to convert it into a reorganization procedure.²⁷ When the applicant submits an application for reorganization to a court of competent jurisdiction, the court may approve the application for reorganization and appoint an administrator to supervise reorganization.²⁸ The court will then notify all creditors. At the same time, the court informs the creditors of the deadline of submitting claims and of the first creditor meeting issues.²⁹ This provision demonstrates how bankruptcy law protects the equality of creditors.³⁰ Creditors shall declare their claims to the administrator, who shall examine the claims upon receipt of the declaration materials and submit them to the first

²² See Chuyi Wei & Yongwei Chen, *The Predicament of Bank Creditors in Chinese Bankruptcy and the Way Out*, 27 INT'L INSOLVENCY REV. 110 (2018) 110.

²³ *Id.* at 123.

²⁴ See Emily Lee & Karen Ho, *China's new Enterprise Bankruptcy Law: A great leap forward, but just how far*, 19 INT'L INSOLVENCY REV. 145 (2010) 170.

²⁵ See Enterprises Bankruptcy Law, square note 12, art 70.

²⁶ *Id.* art 70, Where a creditor applies for putting his debtor into bankruptcy liquidation, the debtor or his capital contributors whose capital contribution makes up one-tenth or more of the debtor's registered capital may, after the people's court accepts the application for bankruptcy and before it declares the debtor bankrupt, apply with the people's court for reorganization.

²⁷ *Id.* art 70.

²⁸ *Id.* art 22.

²⁹ *Id.* art 14.

³⁰ See Xu Yongqian, ET AL., *CHINA'S NEW ENTERPRISE BANKRUPTCY LAW: CONTEXT, INTERPRETATION and APPLICATION* 41 (2020).

creditors' meeting for verification.³¹ After the examination of the claims, the debtor or administrator will begin to formulate a reorganization plan.³²

Generally, during the preparation of the reorganization plan, the debtor may continue to operate and manage the property and prepare a draft reorganization plan under the supervision of the administrator.³³ The administrator may also carry out the entire process.³⁴ The draft reorganization plan should be submitted to the court within six months, and creditors shall vote on whether or not to approve it at the creditors' meeting.³⁵ If the reorganization plan has been voted down by creditors, the debtor or the administrator may still file to the court for a cram-down approval.³⁶ When the reorganization plan is approved, the debtor shall implement the plan under the supervision of the administrator.³⁷ In the event that the reorganization plan is rejected by both the creditors and the court or that the company's businesses deteriorate further during the implementation of an approved reorganization plan, the rescue procedure may be terminated, with the company placed into liquidation eventually.³⁸

2.3 Liquidation

Liquidation provides an orderly route for failed companies to exit the market so as to protect a wide range of stakeholders, such as creditors and employees.³⁹ If the reorganization of the company fails, the court declares the debtor bankrupt in accordance with the provisions of the bankruptcy law.⁴⁰ The court shall make a public announcement and notify the relevant

³¹ See Enterprises Bankruptcy Law, *square note* 12, art 57 58.

³² *Id* art 80.

³³ *Id* art 73.

³⁴ *Id* art 74.

³⁵ *Id* art 79.

³⁶ *Id* art 79.

³⁷ *Id* art 94.

³⁸ *Id* art 93.

³⁹ See Ziad Raymond Azar, *Bankruptcy Policy: A Review and Critique of Bankruptcy Statutes and Practices in Fifty Countries Worldwide*, 16 CARDOZO J. INT'L & COMP. L. 279 (2008).

⁴⁰ See Enterprises Bankruptcy Law, *square note* 12, art 107.

creditors and administrator within the prescribed time.⁴¹ In addition, the court shall appoint the bankruptcy administrator, and all creditors will declare their claims to the administrator at this time.⁴² Third, the administrator will fully take over the bankrupt enterprise, and be responsible for the liquidation, valuation, disposal and distribution of the bankruptcy property under the supervision of the court.⁴³ Fourth, the administrator will prepare a plan for the distribution of the bankruptcy property and submit it to the creditors' meeting for discussion.⁴⁴ If the plan passes the creditors' meeting, it will be submitted to the court for approval. Lastly, the administrator will dispose of and distribute the bankruptcy property according to the distribution plan.⁴⁵ This marks the end of the bankruptcy proceedings where the company officially withdraws from the market.

To sum up, EBL 2006 is a modern bankruptcy law and established a bankruptcy legal framework in China.⁴⁶ However, the EBL 2006 is not suited to claims for environmental liability. In the liquidation procedure, the provisions of the EBL 2006 focus more on traditional debts. Environmental claims are not provided for in this bankruptcy law. This undoubtedly increases the difficult of environmental liabilities claims in bankruptcy cases.⁴⁷ Furthermore, the EBL 2006 provides for a new order of distribution and confirms that priority claims are in Articles 43 and 113.⁴⁸ However, the environmental liability is not mentioned in the priority claims, which means it should be classified as general claims. Therefore, the environmental

⁴¹ *Id* art 107.

⁴² *Id* art 22.

⁴³ *Id*.

⁴⁴ *Id* art 111.

⁴⁵ *Id* art 116.

⁴⁶ See Zhang zinian, *square note* 14, at 380.

⁴⁷ See Zhu Xiaoyan, 中国破产公司法律责任体系构建研究 [Research on the construction of environmental legal liability system of insolvent companies in China] 12 (2012).

⁴⁸ See Enterprises Bankruptcy Law, *square note* 12. art 43: The expenses for bankruptcy proceedings and the debts incurred for the common good of creditors shall be paid off with the debtor's property at any time; art 113: The bankruptcy property shall, after the expenses for bankruptcy proceedings are defrayed and the debts incurred for the common good of creditors are repaid first, be liquidated according to the following order: (1) the wages, (2) the social insurance and the taxes and (3) the common bankruptcy claims.

liability of bankrupt polluters has become an issue because the provisions on environmental liabilities in the EBL 2006 are blank.⁴⁹ It will result that the environmental liability of bankrupt polluters is ignored and transferred to public funds.⁵⁰

3. Case study

EBL 2006 for China was a milestone in legislation, which established a market-based corporate bankruptcy profession and for the first time, mentioned cross-border insolvencies. China promulgated the modern EBL 2006 in order to provide an orderly exit for bankrupt enterprises and to protect creditors.⁵¹ From this point of view, the promulgation of EBL 2006 was undoubtedly successful.⁵² However, in the bankruptcy practices in the past decade, a number of problems have emerged, and these issues have exposed defects within the EBL 2006. The environmental liability of bankrupt polluters is one such defect.

3.1 Shenyang Smelter Factory

Shenyang Smelter was declared bankrupt in 2000 and was the first state-owned enterprise in China to go bankrupt due to environmental problems.⁵³ In the past, Shenyang Smelter accounted for one-tenth of China's total output of non-ferrous metals.⁵⁴ Shenyang Smelter has a high output of gold and silver, and Shenyang Smelter became the production base of gold

⁴⁹ See Zhu Xiaoyan, *square note 47*, at 10.

⁵⁰ *Id.*

⁵¹ See Ravi Bendapudi, *People's Republic of China Bankruptcy Law*, 6 Santa CLARA J. INT'L L. 205 (2008) 206.

⁵² *Id.* 209.

⁵³ See 李宾 [Li Bin] 沈阳冶炼厂破产了 [Bankruptcy of Shenyang Smelter] 沈阳晚报 [Shenyang Evening News], Sep.1, 2000. See 余松林 [Yu Songlin] et al., 沈阳冶炼厂主厂区土壤污染现状评价及污染控制措施 [Current situation evaluation and pollution control measures of soil pollution in the main plant area of Shenyang Smelter], 6 环境保护科学 [Environ. Prot. Sci.] 65 (2005).

⁵⁴ See 辽宁省档案馆 [Liaoning Province Archives], 新中国第一座大型综合有色金属冶炼厂复工-新中国工业的第一季 [The first large-scale Comprehensive Nonferrous Metals smelter to resume Construction in New China-the first Series of New China Industry], 24 兰台世界 [Lantai World] 2 (2017).

and silver in China.⁵⁵ Shenyang Smelter has built a complete heavy metal processing system, including copper, lead, zinc, gold and silver, Sulphur acid and high purity metal semiconductor materials, which together form a large and comprehensive heavy non-ferrous metal smelting enterprise.⁵⁶ These prominent achievements have also produced a very serious pollution problem, however. A significant problem relates to exhaust fumes. According to relevant statistics, Shenyang Smelter emits more than 2000 tons of dust in the air every year.⁵⁷ In these fumes, the average concentration of Sulphur dioxide in the atmosphere around the factory is 1 to 4 times higher than the national standard, and the content of lead exceeds the standard by 150 times.⁵⁸ Furthermore, Shenyang Smelter releases 26,000 to 27,000 tons of sewage every day, and more than 370 tons of heavy metals are discharged from sewage each year.⁵⁹ Lastly, waste residue pollution is also an important pollutant arising from the business of Shenyang Smelter. Shenyang Smelter produces 260,000 tons of waste residue every year.⁶⁰ This waste seriously pollutes the surrounding land and agriculture.⁶¹

After the 1980s, although Shenyang Smelter introduced some measures to reduce environmental pollution, the effect of these measures is not obvious for two reasons. Firstly, Shenyang Smelter set up an internal environmental protection department. Secondly, for the company to strengthen pollution control, the treatment costs would be close to 10 million yuan per year.⁶² However, these measures did not solve the pollution problem of Shenyang Smelter.

⁵⁵ *Id* at 2.

⁵⁶ *Id* at 4.

⁵⁷ See 金福 [Jin Fu], *解决沈阳冶炼厂污染问题的建议* [suggestion on solving the pollution problem of Shenyang Smelter], 3 *环境科学* [Environ. Prot. Sci.] 48 (1998).

⁵⁸ See 陈春台 [Chen Chuntai], *沈阳冶炼厂环境污染防治* [Prevention and control of environmental pollution in Shenyang Smelter], 9 *重金属和有色金属* [Hea Met N.Fer Met] 12 14 (1980).

⁵⁹ *Id* at 14-16.

⁶⁰ *Id* at 15.

⁶¹ *Id* at 15.

⁶² See *讲述铁西区：对话冶炼厂原厂领导白少功* [Talking about Tiexi'dialogue smelter original factory leader Bai Shangong], 腾讯新闻 [Tencent News], Nov. 7, 2014, <https://ln.qq.com/a/20141107/036686.html>.

First of all, the internal environmental protection department is under the internal supervision and leadership of Shenyang Smelter. This means that it lacks independence and mandatory powers, and cannot effectively assume responsibility for supervision. Moreover, 10 million yuan is a relatively small amount and is in no way sufficient to solve environmental problems.⁶³ The main cause of pollution in Shenyang Smelter is its outdated production equipment. Shenyang Smelter would require significantly more funds if it were to upgrade the production equipment to reduce pollution.⁶⁴

Unfortunately, despite the fact that China began to pay attention to environmental protection during the 1990s, China lacks relevant skill how to reduce pollution in the processing in the 1990s.⁶⁵ On the other hand, the Shenyang Smelter lack funds due to the serious shortage of raw materials, and local governments are also unable to save the smelters due to a lack of funds.⁶⁶ In the end, the environmental problem was not solved and Shenyang Smelter went bankrupt. The lack of funds was disclosed in an interview with the manager Shaogong Bai of Shenyang Smelter. He said the Shenyang Smelter had three plans at that time, i.e. pollution control, relocation and bankruptcy.⁶⁷ However, there are technical difficulties in pollution control, and relocation was therefore a better plan. The smelter was moved out of Shenyang, but the relocation cost nearly 600 million yuan (\$83.1 million).⁶⁸ Based on reduced market demand and outdated industrial technology, neither the company nor the government had the money needed to save it.⁶⁹ It was for this reason that Shenyang Smelter went bankrupt in 2000.⁷⁰

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ See 刘宏焘[Liu Hongtao], *20 世纪 70 年代环境污染调查与我国环境保护的启动* [Environmental pollution investigation in 1970s and start of environmental protection in China], 22 *中国现代史研究* [J. Chin. Mod. Hist] 126 (2015).

⁶⁶ See Tencent News, *square note 62*.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

The liquidation of Shenyang Smelter was done according to the old bankruptcy law.⁷¹ This meant that the bankruptcy case of Shenyang Smelter focused primarily on employees' interests. In this case, the Shenyang government promulgated the implementation plan of employee placement in Shenyang Smelter on the 18th August 2000. In fact, because of the lack of relevant details in the old bankruptcy law, this plan only addressed the issue of distribution. In this plan, all the bankruptcy property were used to solve meet the interests of the companies' employees.⁷² However, Shenyang Smelter went bankrupt because of environmental problems, and it caused a lot of environmental problems that were not mentioned in the plan. After i bankruptcy, the government wanted investors to redevelop the business of Shenyang Smelter. However, the government wanted the new enterprises to establish a modern enterprises system that would not result in new pollution.⁷³ However, the government did not address how the contaminated land should be repaired in the future. No investors wanted to take over the Smelter's business, and the Smelter's land had been left idle. According to the relevant investigation, a few years after the bankruptcy of Shenyang Smelter, the original land of the Shenyang smelter is still seriously polluted.⁷⁴ A large number of heavy metals remain in the soil, over an area of 360, 000 square meters. According to the soil environmental quality standard of China, the land of Shenyang Smelter is seriously polluted.⁷⁵ If the land is redeveloped, it must be repaired first.

⁷¹ See Enterprises Bankruptcy Law (trial), *square note* 20.

⁷² See 沈阳晚报 [Shenyang Night Newspaper], *沈阳冶炼厂破产后的资产重组* [assets reorganization of Shenyang Smelter after bankruptcy], 人民日报 [People's daily], Sep. 1, 2000, <http://www.people.com.cn/GB/channel4/973/20000901/212122.html>.

⁷³ *Id.*

⁷⁴ See 宋巍 [Wei Song], *沈阳老工业区企业搬迁现场污染现状研究* [Study on The Present Situation of Site Pollution in The Relocation of Enterprises in Shenyang Old Industrial Zone], 8 今日科苑 [Mod. Sci.] 118 (2007) 118.

⁷⁵ See Yu Songlin et al, *square note* 53, at 65.

In 2002, the government began to prepare for the restoration of land at the Shenyang Smelter. Restoration of the land was done to develop the local economy, so the Shenyang government could prepare to sell the land of Shenyang Smelter. The cost of restoration amounted to more than 50 million yuan, which was borne by the Shenyang government.⁷⁶ As the old bankruptcy law applied, all of the company's assets were distributed to the employees.⁷⁷ This means that taxpayers bore the cost of restoration, while the polluter, Shenyang Smelter,⁷⁸ only bore the cost of land restoration, which in this case, was nearly zero yuan.

3.2 Heilongjiang Heihua Co., Ltd

Heilongjiang Heihua Co., Ltd (Heihua) is a Chinese listed company. Its main products are coke products and chemical fertilizers. The direct predecessor of Heihua was Heilongjiang Chemical General Plant. Heihua was founded in the context of China's economic system reform, which aimed to move the economy from state-owned enterprises to modern companies.⁷⁹ Heihua was founded in 1997 and successfully listed in 1998. According to the relevant data from the annual financial report of Heihua, Heihua has grown rapidly since its listing. For example, the total assets of Heihua increased from 950 million yuan (\$131 million) to 3.2 billion yuan (\$442 million); industrial output value increased from 230 million yuan (\$31.7 million) to 1.5 billion yuan (\$207 million); sales income increased from 500 million yuan (\$69 million) to 2.2 billion yuan (\$303 million), and profits tax increased from 5 million yuan (\$690k) to 500 million yuan

⁷⁶ See 生态环境部 [Ministry of Ecology and Environment], *沈阳冶炼厂原址土地治理工程* [the project of treating land in the original site of Shenyang Smelter], 生态环境部 [PRC Ministry of Eco. Envit.] (Jul. 26, 2006) https://www.mee.gov.cn/ywgz/trsthjbh/trsthjgl/200607/t20060725_91296.shtml.

⁷⁷ *Id.*

⁷⁸ The owner of Shenyang Smelter is China Copper, Lead and Zinc Group, a central enterprise in China. It is a state-controlled enterprise, which means the state capital is not the only source of capital, but also private or foreign capital.

⁷⁹ See *黑龙江黑化集团上市招股书* [The Prospectus of Heilongjiang Heihua Co, Ltd], Sep.18, 1998, <http://www.d-long.com/eWebEditor/uploadfile/2015052112281129966442.pdf>.

(\$69 million).⁸⁰ Thus, Heihua became one of the top 500 enterprises in China, and one of the top ten enterprises in Chinese chemical system.⁸¹

Unfortunately, because of China's adjustment of its industrial structure, two of Heihua's main chemical/mineral products, coke and urea, have been over-produced. This led to market saturation in 2011, and consequently low demand and value in the Chinese market.⁸² This led to four consecutive years of losses in the financial statement disclosed by Heihua.⁸³ The price of coke and urea in China fell particularly sharply in 2014 further reducing Heihua's profits.⁸⁴ Furthermore, in 2014, the Chinese government had promulgated a new Environmental Protection Law, which is regarded as the strictest environmental law in Chinese history.⁸⁵ Heihua has seriously violated the new environmental protection law, and received 29 environmental fines over a two year period (2015-2016).⁸⁶ The major factor in this was that the levels of pollution produced by Heihua significantly exceeded the new national standards. Prior to 2014 emissions from Heihua met the existing standard, but in 2014, the allowable emission rate of atmospheric pollutants in thermal power plants was lowered from 200mg/m³ to 30mg/m³, which led to the emission of Heihua far exceeding the new national standards.

⁸⁰ See 黑龙江黑化集团年度报告 [Annual Report of Heilongjiang Heihua Co., Ltd], Mar. 2000

http://www.sse.com.cn/disclosure/listedinfo/announcement/c/600179_2000_0.pdf.

⁸¹ *Id.*

⁸² See 黑龙江黑化股份有限公司 2011 年度报告 [2011 Annual Report of Heilongjiang Heihua Co., Ltd], 2

http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESH_STOCK/2012/2012-4/2012-04-19/887637.PDF.

⁸³ See 2011-2014 Annual Report of Heilongjiang Heihua Co., Ltd mentioned the losses of Heihua.

⁸⁴ See 今年国内焦炭价格降至七年来最低 [coke prices hit a seven-year low in some parts of China 2014], 中研网 [China Research Network] Jan. 13, 2014, <http://www.chinairn.com/news/20140416/180025332.shtml>.

⁸⁵ See 新环保法史上最严明年1月1日起实施, 八大亮点 [The Eight Highlights of The Implementation of The New Environmental Protection Law Which Is The Strictest in History], 北极星节能环保网 [Polaris Energy Saving and Environmental Protection Network], Apr.25, 2014, <http://news.bjx.com.cn/html/20140425/506418.shtml>.

⁸⁶ See 陈琰 [Chen Yan], 黑化集团两年被开环保罚单 29 张 [Heihua received 29 environmental fines in two years], 环球网 [Global Times], Feb. 5, 2016, <https://news.sina.cn/gn/2016-02-05/detail-ixpftya4333577.d.html>.

Thus, Heihua was fined 15 times for air pollution alone.⁸⁷ Therefore, in the case of overcapacity and environmental problems, Heihua suffered a cumulative loss of 766 million yuan (\$105 million), with an asset-liability ratio of 99.61%.⁸⁸

Heihua began to look for opportunities of reorganization in order to repay its debts and rescue the company. Heihua announced its restructuring plan in May 2015. In the restructuring plan, Heihua disclosed the restructuring for the sale of major assets and the issuance of shares to buy assets and raise supporting funds.⁸⁹ After this reorganization, Heihua sold the listed shell to Antong Holdings, and the parent company of Heihua became China Haohua Chemical Co., Ltd (Haohua).⁹⁰

However, this reorganization failed to rescue Heihua. Instead, Heihua became a ‘zombie company’ after reorganization.⁹¹ A ‘zombie company’ in China means a company that loses the ability to develop itself and must rely on government subsidies or bank renewal loans to survive.⁹² Heihua became a notorious zombie company in China, and has been out of production since 2016. Although Heihua repaid some of its debts after reorganization, the pollution problems remain unsolved. For example, Heihua invested 60 million yuan (\$8.2 million) to reduce environmental pollution before the reorganization, but did not pay more money to reduce environmental pollution after reorganization.⁹³ A cumulative environmental

⁸⁷ See 澎湃新闻 [Pengpai News], 黑化集团连吃 29 张罚单终退场, 环保称企业困难也得罚 [Heihua will end up with 29 fines], 新浪网 [Sina], Apr. 25, 2016, <http://finance.sina.com.cn/stock/s/2016-04-25/doc-ifxrpvcy4428750.shtml>.

⁸⁸ See 2014 黑龙江黑化集团年度报告 [2014 Annual Report of Heilongjiang Heihua Co., Ltd. http://www.sse.com.cn/disclosure/listedinfo/announcement/c/2015-03-02/600179_2014_n.pdf.

⁸⁹ See 2015 黑化重组方案 [2015 Reorganization Plan of Heihua], May. 8, 2015, <http://www.cninfo.com.cn/finalpage/2015-05-09/1200986971.PDF>

⁹⁰ *Id.*

⁹¹ See Bankruptcy Announcement of Heilongjiang Heihua Group, *square note 1*.

⁹² See 何帆 & 朱鹤 [He Fan & Zhu He], 僵尸企业的经济判断 [Economic Judgment of Zombie Enterprises], 213, (2018).

⁹³ See Pengpai News, *square note 87*.

fine of 33.7968 million yuan (\$4.6m) has not been paid.⁹⁴ What is especially interesting is that Haohua, the parent company of Heihua, seems to be evading its environmental obligations. In the reorganization plan, Haohua receives all assets and debts of Heihua. However, Haohua did not bear the relevant environmental liabilities of Heihua. Haohua did not give Heihua relevant financial support, and indeed Heihua ultimately shut down production and was unable to meet any of its remaining liabilities.⁹⁵ For example, Qiqihar Environmental Protection Bureau applies for court procedures to force Heihua to pay its environmental fines. However, the local court assessment found that Heihua did not have enough funds to do this.

The environmental liabilities for Heihua were not simply about environmental fines. In fact, the groundwater pollution around the Heihua plant remains very serious. In an investigation, the groundwater pollutants around the Heihua exceeded the standard, including as stated in the permanganate index, volatile phenols, anionic synthetic detergents and other indicators that evaluate serious pollution. These pollutants seriously affect the health of the surrounding residents. However, Haohua did not address these environmental problems after the sale of the listed shell of Heihua. In the end, neither Heihua nor the government has repaired the groundwater around Heihua. If the groundwater will be repaired in the future, the cost of rehabilitation, like environmental fines, may not be recovered. This is again because Heihua lacked sufficient solvency.⁹⁶

Heihua filed for bankruptcy and began the claim declaration process in May 2019, and its liquidation was completed in December 2019. According to the relevant information, no environmental liability has been imposed on Heihua or Haohua.⁹⁷ Throughout the liquidation

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ See 为中央企业依法处僵治困工作再创佳绩-尚公所圆满完成鑫泰石化破产清算工作[*New Achievement for The Liquidation of Zombie Enterprises – S&P Law Firm Successfully Completed the Insolvency Liquidation of Xintai*], 尚公律师事务所 [S&P Law Firm], Dec. 31, 2019,

process, environmental liability was not mentioned. Moreover, there is no information that the government will remediate the contaminated site of Heihua after the bankruptcy liquidation is concluded, which means that Heihua's site is currently in an abandoned and unmanaged state.

3.3 Yunnan Yongren Tuanshan Copper Mine

Yunnan Yongren Tuanshan Copper Mine (Tuanshan) was founded in 1990 and specializes in the mining and sale of copper concentrate. Tuanshan is a subsidiary company of Yunnan Copper. Tuanshan began bankruptcy liquidation proceedings in 2017. The reason for the bankruptcy was that it exhausted its resources and had no prospect of generating more.⁹⁸ In recent years, Tuanshan mainly depended on mining sporadic small ore and recovering residual ore in order to maintain its business. But this kind of business put Tuanshan into a state of sustained loss.⁹⁹

Tuanshan lost more than 5.5 million yuan (\$759k) in total from 2015 to 2017.¹⁰⁰ Furthermore, Tuanshan has been looking for a receiver since 2015, but without success.¹⁰¹ By the end of May 2017, the total assets of Tuanshan were 9.19 million yuan, but the debt scale was as high as 37.69 million yuan (\$5.2 million), and the asset-liability ratio was nearly (-)410%.¹⁰² It has insufficient assets for repaying all its debts and it is apparently bankrupt. Therefore, if

<https://www.splf.com.cn/CN/07/0000000000000002144.aspx>. This article mentioned that S&P Law team has completed the liquidation of Heihua in abstract.

⁹⁸ See *关于永仁团山铜矿法院受理破产清算申请的公告* [Announcement on the Acceptance of Bankruptcy Liquidation Application by the Court of Yongren Tuanshan Copper Mine], Yunnan Copper [云南铜业], Nov. 26, 2017, <http://www.yunqingsuan.com/news/detail/30170>.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ See *云南铜业加速处置亏损资产，团山铜矿资不抵债将被清算* [Yunnan Copper to Accelerate Disposal of Loss Assets Tuanshan Copper Mine Bankrupt will be Liquidated], 搜狐财经 [Souhu Financial], Oct.30, 2017 http://m.sohu.com/a/201229399_99904063.

¹⁰² See Yunnan Copper, *square note 98*.

Tuanshan completes bankruptcy liquidation, it can effectively reduce long-term losses and is conducive to the overall healthy development of Yunnan Copper in the future.¹⁰³

The high pollutant mining activities of Tuanshan caused significant environmental damage. According to Article 64 of the Environmental Protection Law, the mine is responsible for mining land remediation.¹⁰⁴ Unfortunately, according to the relevant information disclosed by Yunnan Copper, such as its Corporate Social Responsibility (CSR) report and annual report, Yunnan Copper and its subsidiaries have repaired some mining land after 2014, but they did not repair the mining land in Tuanshan.¹⁰⁵ Although there is no direct evidence that Yunnan Copper deliberately evaded responsibility for the restoration of Tuanshan, some indirect evidence seems to show this.

Firstly, it is an interesting thing in the CSR report of Yunnan Copper that the mines repaired by Yunnan Copper are profitable. These subsidiaries include Yuxi Mining Industry, Diqing Mining Industry and Chuxiong Mining Industry, and these have all shown excellent profitability in recent years.¹⁰⁶ The profits of Yuxi Mining exceeded more than 50 million yuan (\$6.9 million) in the first half of 2017.¹⁰⁷ Diqing Mining achieved sustained profits in 2018.¹⁰⁸ And Chuxiong Mining has rich mineral resources to be exploited.¹⁰⁹ Compared with these companies, Tuanshan's mineral resources are exhausted, without economic and profit value

¹⁰³ See 2017 云南铜业年度报告 [2018 Annual Report of Yunnan Copper], s 11 bankruptcy and organization mentioned that...In order to further reduce losses and safeguard the legitimate rights and interests of the company and its shareholders, the company filed a bankruptcy liquidation petition with the Yongren County People's Court in Yunnan Province on October 27, 2017.

http://vip.stock.finance.sina.com.cn/corp/view/vCB_AllBulletinDetail.php?stockid=000878&id=5149989.

¹⁰⁴ See Environmental Protection Law, *square note 5*, art 64

¹⁰⁵ These sites are mentioned in CSR report of Yunnan Copper between 2014 -2021.

¹⁰⁶ For example, Yuxi and Chuxiong sites were mentioned in 2016 CSR report, https://pdf.dfcfw.com/pdf/H2_AN201703280445361844_1.pdf?1647100039000.pdf.

¹⁰⁷ See 2017 云南铜业企业社会责任报告 [2017 Annual Report of Yunnan Copper], <http://basic.10jqka.com.cn/api/stockph/pubInfo/13865911/>.

¹⁰⁸ See 2018 云南铜业企业社会责任报告 [2018 Annual Report of Yunnan Copper].

<https://ynty.chinalco.com.cn/shzr/shzrbg/202101/P020210127391277925267.pdf>.

¹⁰⁹ *Id.*

and the company's asset-liability ratio is 410%.¹¹⁰ One of the important goals of the company is profit.¹¹¹ Yunnan Copper, as the parent company, is not willing to provide funds to support worthless companies, and has reduced its commitment to environmental liability. It can be speculated from this behavior that Yunnan Copper wants to evade environmental liabilities. Because Yunnan Copper is a Chinese listed company, it is likely to be affected by business and profits due to the environmental liability of its subsidiaries. Although this inference cannot be directly confirmed, this inference has been confirmed in the past case. Yunnan Copper sold Lanping Yun Mine at a low price in 2012. Many researchers believe that sale Lanping Yun mine is a measure by Yunnan Copper to avoid China's regulation of the mining environment.¹¹²

Furthermore, in China, all mining companies need to pay a deposit before mining.¹¹³ The deposit, named the mine deposit, is used to fund mine restoration after mining.¹¹⁴ The nature of the deposit is like a mandatory financial assurance. A mining company can pay this deposit by instalments.¹¹⁵ These deposits are owned by the enterprise, supervised by the local government and stored in a dedicated account only for the remediation of the mine post closure.¹¹⁶ However, even if they pay all of the deposit, it is still less than the cost of restoration

¹¹⁰ See Yunnan Copper, *square note* 98.

¹¹¹ Keay Andrew & Walton Peter, *Insolvency Law Corporate and Personal*, 55 (4th edn, 2017).

¹¹² See 云南铜业低价卖矿存蹊跷, 转让资产离奇亏损 [*Yunnan Copper Sells Mineral Deposits at A Low Price and Makes A Grotesque Loss on Assets Transferred*], 北京商报 [Beijing Business Newspaper], Jun. 18, 2012, http://www.cs.com.cn/ssgs/gsxw/201206/t20120618_3375156.html.

¹¹³ See 中国国土资源部第44号令矿山地质保护条例 [*Regulations on Geological Protection of Mines No.44 Order of the Ministry of Land and Resources of P.R.China*] which came into effect in 2009 and expired in 2017. The mine deposit was established according to the guidelines of the Ministry of Land and Resources P.R.China, and each province and city set their own fees standard, but the fees are generally low, for example, 3-9 yuan (\$0.41-1.24) per square meter in Jiangsu Province.

¹¹⁴ *Id* reg 18.

¹¹⁵ The method and mode of deposit is regulated by each province and city, but the rules are mostly the same from province to province. For example, See 云南省矿山地质环境恢复治理保证金管理暂行办法 [*Interim Measure for the Management of Mine Geological Environment Restoration Deposit in Yunnan Province*] 2006 reg 6.

¹¹⁶ See Ministry of Land and Resources, *square note* 113, reg 18.

after mining.¹¹⁷ It is worth noting that the payment of the deposit can be provided in instalments, and many companies do not complete the full instalment when they go bankrupt or close down.¹¹⁸ As a result, some companies give up the deposit after bankruptcy. According to the relevant data from Ministry of Natural Resource (MNR), nearly 70% of companies have not paid the fees for clean-up or remediation.¹¹⁹ Similarly, an interview in the Economic Observer can support this supposition. Mr. Lin, who is the manager of a mine said that ‘Before I paid all instalments of the deposit, the company went bankrupt...and I did not want the deposit to come back, because it wasn’t enough to cover the cost of repair’.¹²⁰ In essence, if a mining company forfeits their deposit then they do not need to repair the mined land.¹²¹ Three national departments (MF, MNR and MEP) jointly issued guidance in 2017, which abolished the mine deposit system and established the fund for the mine remediation.¹²² However, according to the retroactivity principle, Tuanshan entered bankruptcy liquidation in 2017. Thus, Tuanshan does not need to establish the fund for mine remediation. In the end, the government has to undertake the environmental remediation of Tuanshan, which means that environmental costs will be transferred to the society. Based on the ‘Measures for the Administration of Special funds for the recovery and treatment of Mine Geological Environment’, the government should bear the responsibility for remediation if the polluter is bankrupt.¹²³

¹¹⁷ See 燕守广 et al [Yan Shouguang], *中国矿山环境控制与恢复保证金制度*[*Deposit system for mine environmental control and recovery in China*], 37 *环境科学与管理* [Environ. Sci. Manag.], 3 (2013).

¹¹⁸ See *七成矿山放弃了修复保证金 银行财政都要出手*[*More than 70% of Mines give up deposits*], 首云矿业 [Shouyun Mine], Jul. 19, 2019, <https://www.kanzhun.com/news/386140.html>.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ See Yan Shouguang, *square note* 117, 4.

¹²² See *关于取消矿山地质环境治理恢复保证金 建立矿山地质环境恢复基金的指导意见*[*Guiding on abolishing the deposit for the recovery of mine geological environment and establishing the recovery fund for mine geological environment control*], 财政部,自然资源部,生态环境部 [MF: Ministry of Finance MNR: Ministry of Natural Resources MEP: Ministry of Ecology and Environment], Jul. 24, 2017, https://www.gov.cn/hudong/2017-07/24/content_5213030.htm.

¹²³ See *关于印发《矿山地质环境恢复治理专项资金管理办法》的通知* [*Measures for the administration of special funds for the recovery and treatment of mine geological environment*], 国务院公报 [St. Council Gaz.],

Lastly, if the local government pays Tuanshan's costs to repair the mine land, the government can file a lawsuit to demand that Tuanshan pay the cost for the restoration.¹²⁴ But, the end result may be that the government will probably win the lawsuit but still not get back the compensation money. Things are actually moving in this predicted direction. In 2021, the local government began work on cleaning up and remediation the mine site of Yongren Tuanshan, and put it out to public tender.¹²⁵ In 2022, clean-up and remediation work has already begun, but according to the local government press reports, it is public funds that will pay for this environmental costs.¹²⁶ This means that by the time the government had completed the repair and calculated how much this repair cost, Tuanshan will have already completed their bankruptcy liquidation. Tuanshan is an independent legal entity, whose debt has nothing to do with Yunnan Copper.¹²⁷ In the end, Yongren Tuanshan and its parent company, Yunnan Copper, are successful that their environmental liability has been transferred to the society.

Mar. 27, 2013, Article 2: These measures apply to the use and management of special funds for the restoration and management of geological environments in mining areas (hereinafter referred to as "special funds") arranged through the central government's allocation of mineral resource special income. Article 3: The restoration and management of geological environments in mining areas, as referred to in these measures, refers to the restoration and management of the geological environment damaged by mining activities in state-owned mines that were formed during the planned economy period or where the responsible party has ceased to exist.

¹²⁴ See *关于审理生态环境损害赔偿案件的若干规定(试行)* [Provisions of the Supreme People's Court on the Trial of Cases Involving Compensation for Ecological and Environmental Damage (Trial)], 最高人民法院 [Sup. People's Ct.], May. 20, 2019, see reg 1: Provincial and prefecture-level people's governments, their designated departments and institutions, or the departments entrusted by the State Council to exercise the ownership of natural resources assets owned by the entire people... may act as plaintiffs to file lawsuits for compensation for ecological and environmental damage.

¹²⁵ See *永仁县团山铜矿固体废渣治理及生态修复项目* [Yongren County Tuanshan Copper Mine Solid Waste Treatment and Ecological Restoration Project], 永仁县政府 [Yongren County Government], Jul. 11, 2022, <http://m.biaokezhan.com/detail/62cbcb4f416e2338b0dc76b2.html>.

¹²⁶ See *吴亚峰: 担责于心, 履责于行, 扎实做好尾矿库治理的后半篇文章* [Wu Yangfeng: responsibility in mind, responsibility in action, high quality completion of mine remediation treatment], 永仁县人民政府 [永仁县人民政府], Jul. 11, 2022. <http://www.yr.gov.cn/info/1040/45824.html>.

¹²⁷ See *中华人民共和国公司法 2005* [Company Law 2005] as amended 2018. See art 14: A company may establish subsidiaries, which shall possess the status of legal persons, and shall independently bear civil liabilities according to law.

3.4 Yunan Jinggu Mining and Metallurgical Co., Ltd

The main business of Yunnan Jinggu Mining and Metallurgical Co., Ltd (Jinggu) is the mining and production of non-ferrous metal mines, and the sale of copper concentrate and electrolytic copper products.¹²⁸ Jinggu became the subsidiary company of Yunnan Copper in 2011. The first year of Yunnan Copper's acquisition of Jinggu was profitable, and made 5.738 million yuan (\$792k).¹²⁹ However, over the next 4 years, the profitability of Jinggu reduced significantly, and it lost money consistently between 2012 and 2016.¹³⁰ Yunnan Copper also said that Jinggu made a profit of 573.08 million yuan (\$79 million) in 2011, mainly due to the high price of electric cooper in the market. But the fall in copper prices in the following years led to continued losses.¹³¹ Therefore, Yunnan Copper decided to liquidate Jinggu in order to avoid further expansion of losses.

According to the Yunnan Copper announcement, as of June 2017, the total assets of Jinggu were 12.75 million yuan (\$1.7 million), the total debts were 58.52 million yuan (\$8 million), and the asset-liability ratio was 461%.¹³² As a result, Jinggu would not have the ability to repay its maturing debts and instead would continue to suffer from losses into the future. Thus, Jinggu decided to file for bankruptcy.

As above noted, one of Jinggu's main businesses is mining. Therefore, like Tuanshan discussed above, Jinggu also did not repair the land of the damage caused by mining. Fortunately, Jinggu did pay the cost of another environmental remediation case in one lawsuit, as described below.

¹²⁸ See 云南铜业关于全资子公司法院受理破产清算申请的公告[云南铜业关于全资子公司法院受理破产清算申请的公告], 新浪财经[Sina Finance], Sep. 30, 2017, http://money.finance.sina.com.cn/corp/view/vCB_AllBulletinDetail.php?stockid=000878&id=3787681.

¹²⁹ See 2011 云南铜业年度报告 [2011 Annual Report of Yunnan Copper], http://vip.stock.finance.sina.com.cn/corp/view/vCB_AllBulletinDetail.php?id=864644.

¹³⁰ See Sina Finance, *square note* 128.

¹³¹ *Id.*

¹³² *Id.*

In 2015, a pipeline in Jinggu broke, causing copper sulphate to leak through the spillway. The leak contaminated part of the farmland and river in a village. After the pollution accident, Jinggu reached a compensation and mediation agreement with local villagers in relation to the direct economic losses caused by pollution. In the agreement, Jinggu Company paid a total of 514,900 yuan (\$71k) to the injured villagers. However, Jinggu did not pay the costs of environmental remediation. According to the judicial expertise opinion issued by Yunnan Desheng Judicial expertise Centre, the cost of the environmental pollution damage was 1.3583 million yuan (\$180k), including 528,600 yuan (\$73k) for farmland environmental pollution damage and 829,700 yuan (\$11k) for ecological environment damage repair.¹³³ This amount does not include Jinggu's compensation for the direct economic losses of injured villagers through the mediation agreement. In April 2016, the Pu'er City People's procuratorate¹³⁴ filed a civil public interest lawsuit with the Pu'er Intermediate People's Court. In this case, the procuratorate asked Jinggu Company to pay 829,700 yuan (\$11k) for the restoration of ecological and environmental damage.¹³⁵ In the end, procuratorate and Jinggu voluntarily reached a settlement agreement. Jinggu Company agreed to pay environmental repair costs of 829,700 yuan (\$11k), and Jinggu did pay these costs.¹³⁶

In the lawsuit described above, firstly, the procuratorate filed environmental public interest litigation in accordance with article 55 of the Civil Procedure Law. In addition, Article 64 of the Environmental Protection Law provides that the polluter shall be liable for damage if it pollutes or damages the environment. Similarly, Article 65 of the Tort Liability Law provides that the polluter shall bear tort liability. Therefore, under the circumstances of clear facts,

¹³³ See 云南省普洱市人民检察院诉云南景谷矿冶有限公司民事公益诉讼案 [Pu'er People's Procuratorate v. Jinggu Mining and Metallurgical Co., Ltd., 'Environmental Civil Public Interest Litigation Case'], Sup. People's Proc. Guiding Case Mar. 2018.

¹³⁴ Procuratorate is the office of a procurator.

¹³⁵ See Sup. People's Proc. Guiding Case, *square note* 133.

¹³⁶ *Id.*

Jinggu and the procuratorate reached a mediation agreement.¹³⁷ This case was fortunate for protecting environmental liabilities, because it took place before the company filed for bankruptcy and mediation agreement was received before the company went into liquidation. This meant that the cost of environmental remediation did not classify to the general claims in liquidation. This claim was independent of other bankruptcy claims. If the procuratorate took a lawsuit when Jinggu entered bankruptcy liquidation, the result would have been very different. This is because, in the liquidation, the claim of environmental remediation would have been classified as general claims. If environmental liabilities are to be paid off, it must be done after the bankruptcy expenses and the interests of employees are distributed. Even if the bankruptcy property can pay off a portion of the general claim, the asset-liability ration of Jinggu was 461%, which means that only a small portion or even zero of environmental liability can be paid off. Therefore, in this case, it is fortunate that Jinggu paid full compensation.

This case can prove that the relevant laws of China can really protect or support the environmental liability. However, in bankruptcy proceedings, environmental liabilities are still hard to meet.¹³⁸ If the government, public welfare organizations or procuratorate can file a lawsuit before the polluter enter the bankruptcy liquidation, there is a good chance that the polluter will pay the full environmental liabilities. However, the staff of the government, public welfare organization and procuratorate, must be able to sensitively determine environmental liabilities and file environmental public interest litigation in a timely manner. Thus, these relevant staff members must have professional skills and knowledge in environmental science and law. In China, however, most relevant staff do not have the dual background of

¹³⁷ *Id.*

¹³⁸ See 张钦昱[Zhang Qinyu], *破产企业环境债权的保护*[*Protection of Environmental Liabilities in Bankruptcy Companies*], 2 政治与法律 [Poli. Law], 143 (2016).

environmental science and law, so in most cases, they cannot file the relevant environmental public interest litigation in time.¹³⁹

Because of a range of issues described above, the current situation of environmental liability is that most cases cannot be compensated in bankruptcy proceedings, as indicated by the cases described here, such as Shenyang Smelter, Heihua Group, Yongren Tuanshan, and the restoration of mining in Jinggu. In the end, these environmental liabilities can only be borne by public funds. Even if the government can file an environmental claim to court, the bankrupt polluter has often already completed the liquidation and they no longer possess the money to pay for environmental liabilities. Thus, the government is still unable to receive compensation from bankrupt polluters. However, if the bankrupt polluter cannot pay their environmental liability, it still violates environmental protection law, environmental protection taxes law and tort law in China, which make provisions for the polluter pays policy. Thus, further research is required to better understand how bankruptcy law and environmental law should be connected in China.

3.5 Some reflections from case study

The case study section of this thesis describes how Chinese law treats environmental liability in bankruptcy proceedings and considers three core findings.

The first finding from case study is the public funds paid for the environmental costs of bankrupt polluters. Although polluters are required to pay environmental costs, the government still plays a major role in paying for environmental costs in the event of bankruptcy. Even in some companies that have gone bankrupt due to pollution, environmental costs have not been

¹³⁹ 张红振 [Zhang Hongzhen] et al., *环境损害评估: 构建中国制度框架* [Environmental Damage Assessment: Establishing of System Framework in China], 35 *环境科学* [Envir. Sci.] 4015 (2014) 4020.

paid by polluters in the liquidation process, such as Shenyang Smelter, and Yongren Tuanshan as described both. It is clear that the legislator did not take into account the conflicting relationship between the Enterprises Bankruptcy Law (EBL) and Environmental Law.¹⁴⁰ Although environmental law provided a number of remedies against environmental cost recovery, these are ineffective in bankruptcy cases. For example, environmental law allows regulators to take environmental action to require polluters to pay environmental costs. In case study 4, the regulator was successful in recovering the environmental costs of the Jinggu site. However, another possible scenario was also considered in case study 4, i.e. If the environmental litigation occurs after a bankruptcy, then it is likely that the regulator will win the case but not be able to recover environmental costs.¹⁴¹ The other example is the mine deposit, which is a kind of mandatory financial assurance and was introduced in case study 3. The mine operators in this case were required to prepare a deposit to cover the cost of the mine's remediation, but before 2017, the deposit could be paid by instalment.¹⁴² However, many mine operators fail to complete payment of the deposit at the time of mine bankruptcy, and the recovery of the deposit is not considered by the judge, or bankruptcy administrator in bankruptcy cases.¹⁴³ This idea has been demonstrated in case study 3. In the end, environmental costs are not internalized in practice and therefore have to be transferred to society.

The second finding is that there may be no one to clean up or remediate the sites of bankrupt polluters. Although a proportion of the environmental costs of bankrupt polluters are covered

¹⁴⁰ See Zhang Qinyu, *square note* 138, at 143.

¹⁴¹ See case study 3.4.

¹⁴² The method and mode of deposit is regulated by each province and city, but the rules are mostly the same from province to province. For example, See Interim Measure for the Management of Mine Geological Environment Restoration Deposit in Yunnan Province 2006 reg 6: Within 15 working days... (Operator) to the designated bank to deposit the deposit. With the deposit voucher and related materials, sign the mining geo-environmental protection and restoration management responsibility letter to the mining right approval authority and receive the mining license.

Reg 10: The deposit must be deposited in a bank account designated by the competent administrative department of land and resources at all levels, managed centrally and used exclusively for the purpose, and may not be used for any other purpose.

¹⁴³ See Shouyun Mine, *square note* 118.

by public funds, a significant proportion of contaminated sites are not being remediated. For example, in the Heihua case study, Heihua completed its liquidation and its environmental liability was not mentioned in winding up, meaning that the contaminated site is in an unmanaged (abandoned) state. If this contaminated site is not remediated and cleaned up, it can result in the long-term persistence of pollutants that can have an ongoing negative impact on the surrounding environment and human health.¹⁴⁴ Another significant issue related to this is that there are a large number of zombie enterprises in China, and the polluting ones, represented by Heihua, are a problem that the Chinese government has wanted to focus on in recent years.¹⁴⁵ However, in documents issued by the Chinese government relating to the bankruptcy of zombie companies, the interests of employees are the priority.¹⁴⁶ In this case, the amount of abandoned contaminated sites will only increase and is undoubtedly a huge challenge for the internalization of environmental costs.

The third finding is that EBL is a haven for polluters. The parent company separates subsidiaries with depleted mining resources and high debts by way of liquidation. The parent company focuses on environmental remediation obligations for some valuable subsidiaries, such as those rich in mineral assets. The parent company uses this approach to escape its environmental obligations. This approach is demonstrable in case studies 3 and 4. This is the mode adopted by Yunnan Copper. Yongren Tuanshan and Jinggu, were both subsidiaries of Yunnan Copper and were declared bankrupt as their mines were no longer profitable while they were heavily in debt. After Yongren Tuanshan and Jinggu completed their bankruptcy,

¹⁴⁴ See Richard L. Revesz, *Cost-Benefit Analysis and the Structure of the Administrative State: The Case of Financial Services Regulation*, 34 YALE J. ON REG. 545 (2017).

¹⁴⁵ See *China Holds Key Economic Meeting to Plan for 2019, The State Council of P.R.China*, Dec. 21, 2018, http://english.www.gov.cn/news/top_news/2018/12/21/content_281476445128423.htm.

¹⁴⁶ See *加快完善市场主体退出制度改革方案* [The Reform Plan for Accelerating Improvement of the Exit System for Market Participants], 国家发改委和其他 12 个国家部门 [The National Development and Reform Commission and other 12 National Development] No.1104 [2019] See section 7 mentioned the interests of employees and financial institutions.

their environmental liabilities were not mentioned and were not at all present in the relevant bankruptcy disclosures of Yongren Tuanshan and Jinggu. On the other hand, other valuable subsidiaries have environmental remediation processes positively presented in Yunnan Copper's annual reports.¹⁴⁷

Meanwhile, it is suspected that some companies may also use reorganization to escape their environmental obligations. Typically, companies with environmental liabilities are automatically 'released' when they are taken over by other buyers.¹⁴⁸ The buyer, in turn, usually refuses to pay the environmental costs owed by the previous company.¹⁴⁹ Government officials, in order to facilitate the success of corporate reorganization, usually do not force buyers to assume the seller's previous environmental liability, with the ultimate environmental costs being borne by the government.¹⁵⁰ Heihua is a classic example. When Heihua was acquired by Haohua, Haohua did not pay anything for Heihua's environmental costs as well as not paying the environmental damage fines.

Overall, there is a strong conflict between environmental law and bankruptcy law. Internalization of environmental costs is difficult to achieve in Chinese bankruptcy proceedings and in most cases, public funds have to cover the environmental costs of bankrupt polluters.

4. Existing problems of the EBL 2006

EBL 2006 was successful when China first enacted this law, as it addressed the country's corporate bankruptcy issues. However, this law is unable to meet the needs and demands of

¹⁴⁷ For example, *see* 2020 annual environmental report by Yunnan Copper, there are several subsidiaries have been remediated, such as Diqing Ltd. http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2021/2021-3/2021-03-30/6991274.PDF.

¹⁴⁸ *See* Mary J. Koks & Tim Million, *Environmental Issues in Bankruptcy*, 40 TEX. ENVTL. L.J. 43 (2009) 46.

¹⁴⁹ *See* case study 3.2, Heihua and Haohua.

¹⁵⁰ *See* Mary J. Koks & Tim Million, *square note* 148, at 46. Although the author's study is based on US bankruptcy law, the role of the government in bankruptcy will be more powerful in China.

current societal development.¹⁵¹ One clear problem is that environmental liabilities are ignored in bankruptcy cases, which would be in breach of the polluter pays principle and regulation of environmental laws.¹⁵² In the past 15 years, the implementation of EBL 2006 has remained considerably weak.¹⁵³ The implementation of EBL 2006 did not mention the issue of environmental liabilities, despite it deserving greater attention from Chinese legislators. This part will analyze the shortcomings of EBL in terms of environmental liability, and will focus on reorganization, liquidation, and post-liquidation.

4.1 Reorganization

One purpose of bankruptcy law is to rescue the bankrupt company.¹⁵⁴ Reorganization is a vital means of rescue for bankrupt companies,¹⁵⁵ as is often the case for many bankrupt industrial companies in China. Nevertheless, their reorganization plans do not typically mention environmental liability. For example, in the first reorganization of Heihua, there was no mention of any environmental liability in the reorganization plan. As such, reorganization lacks the relevant provision of environmental liabilities protection in bankruptcy law.

Firstly, there are shortcomings with the creditor committee system. The creditor committee has only nine members and there are no representatives for environmental claims. It is therefore difficult, in these cases, to guarantee the realization of environmental liability. In fact, the creditor committee plays a dominant role in the supervision of debtors' property, as the members of the creditor committee represent the interests of the various creditors in the meeting.¹⁵⁶ For example, China's bankruptcy law provides that one of the members of the

¹⁵¹ See Zhang Zinian, *square note 14*, at 394.

¹⁵² See *Can the Insolvent Polluter Pay - Environmental Licenses and the Insolvent Company*, 12 J. ENVTL. L. 207 (2000) 210.

¹⁵³ See Zhang Zinian, *square note 14*, 394.

¹⁵⁴ See Tuula Linna, *Insolvency Proceedings from a Sustainability Perspective*, 28 INT'L INSOLVENCY REV. 210 (2019) 210.

¹⁵⁵ See Zhang Zinian, *Corporate Reorganisation in China: An Empirical Analysis* 12 (2018).

¹⁵⁶ See Parry Rebecca & Long Yingxiang, *China's Enterprises Bankruptcy Law, Building An Infrastructure*

creditor committee must be an employee representative or a representative of the work union.¹⁵⁷ Thus, employees are given preferential protection in China's bankruptcy law. Environmental liability can be given preferential protection in the creditor committee at present, though there is still uncertainty about the protection of environmental claims in the selection of members making up the creditor committee and the system approved by the court.¹⁵⁸ In practice, few representatives of environmental claims become members of the creditor committee. While the environmental liability of bankrupt polluters covers a wide range of areas, and the cost of environmental claims is high,¹⁵⁹ representation for such environmental claims in bankruptcy proceedings is not proportionate. They are then unable to respond quickly to the number of environmental claims, such as in the cases of Jinggu and Tuanshan. In the absence of representatives for these environmental claims, it is difficult to protect environmental liability in the creditor committee and meeting of creditors.

Secondly, there is a problem with the voting system in bankruptcy law. The representative of an environmental claim can join the creditors' meeting only after the environmental claim has been confirmed, upon which the representative has the right to vote on the reorganization plan.¹⁶⁰ If the environmental claim can be paid off, the representative of the environmental claim needs to join the creditors' meeting. However, environmental liabilities are hidden at some points, such as for Shenyang Smelter, so it is not easy for the government or relevant environmental reorganization to identify relevant environmental liabilities. The result is that environmental claims cannot be declared at the creditors' meeting.

Towards a Market- Based Approach, 20 J. Corp. L. Stud. 157 (2020) 167.

¹⁵⁷ See Enterprises Bankruptcy Law, *square note* 12, art. 67.

¹⁵⁸ See 许胜峰 [Xu Shengfeng], *我国破产程序中债权人委员会制度的不足和完善* [*The deficiency and perfection of creditor committee system in bankruptcy proceedings in China*], 5 中国政法大学学报 [J. Chinese Political Sci. L.] (2018), 110.

¹⁵⁹ See Tuula Linna, *square note* 153, 228.

¹⁶⁰ See Enterprises Bankruptcy Law, *square note* 12, art. 59.

If the vote has been completed, can a special vote be taken?

The answer is possibly. However, according to China's Bankruptcy Law, the representatives who vote on the reorganization plan are limited to secured claims, labor claims, taxes and ordinary claims. The representative for environmental claims can only vote as a general unsecured creditor and can therefore not guarantee whether environmental liabilities will be incorporated into the reorganization plan or not.¹⁶¹

Thirdly, there is an absence of relevant laws for the assessment of the results of environmental claims. In practice, professional environmental appraisal institutions evaluate environmental claims, and the assessment report serves as the basis for judges to determine the monetary value of environmental claims.¹⁶² For example, in the case of Pu'er City Procuratorate v. Jinggu, the evidence of the environmental claim is the environmental claim report issued by the professional institution. However, there is a problem that environmental pollution is a continuous process, and therefore the result of previous assessments has the potential to change with time.¹⁶³ Therefore, it is necessary to establish a review system for the assessment of environmental claims. This will help to assure environmental liabilities and uphold the fairness principle.

4.2 Liquidation

As analysed above, environmental liabilities do not have priority in relation to liquidation in Chinese bankruptcy cases. This means that environmental liabilities are in a disadvantageous position when it comes to liquidation, and are not in line with China's national development

¹⁶¹ *Id* art. 59 64.

¹⁶² See 韩兵 [Han Bing], *论检验报告在环境侵权中的运用* [Discussion on The Application of Inspection Report in Environmental Tort Litigation], 11 *法制与社会* [L.& Soc], 197 (2018) 109.

¹⁶³ *Id* 110.

policy in regards to the green economy¹⁶⁴. Generally speaking, the monetary value of environmental liability involved is high. If environmental liabilities were to equate to general, unsecured claims, then environmental liabilities cannot be realized in the course of bankruptcy proceedings. This will lead to more companies taking up environmental costs as free costs and avoiding environmental liability through bankruptcy liquidation after polluting activity has occurred, as was the case with Tuanshan.¹⁶⁵ Such behaviors constitute a serious violation of the polluter pays principle and corporate social responsibility.

In addition to the problem described above, in Chinese law, the bankruptcy property is used for the liquidation of corporate debts and the distribution to shareholders.¹⁶⁶ The company no longer owns any property, and this distribution does not take into account whether the company will have new debt after liquidation. This mode of distribution is not conducive to environmental liability.¹⁶⁷ If environmental liability is discovered after bankruptcy, but the company does not have any property to compensate for environmental liability, then even if environmental liability is supported by the claim, it cannot be compensated.

Environmental liability should be given priority in winding up according to the values of equality and justice.¹⁶⁸ The bankruptcy regime is designed to meet the requirements of equitable distribution, which is the primary purpose of bankruptcy legislation.¹⁶⁹ The long-term, latent, and complex nature of environmental damage makes it particularly difficult to protect the public interest represented by environmental liabilities compared to other

¹⁶⁴ See Qu Dongmei, *Low Carbon Economy and the Priority of Environmental Tort Liability in Bankrupt Enterprises*, 5 *Energy Procedia* 1814 (2011) 1815.

¹⁶⁵ *Id* at 1816.

¹⁶⁶ See *Enterprises Bankruptcy Law*, square note 12, art. 30.

¹⁶⁷ See Qu Dongmei, square note 164, at 1815.

¹⁶⁸ See Qu Dongmei & Qu Junpeng, *Research on the Priority of Environmental Tort Obligation in Bankrupt Enterprises under the Background of Low Carbon Economy*, 4 *J. Sustain. Dev.* 150 (2011) 152.

¹⁶⁹ See Daniel A. Austin & Cheng-to Lin, *Bankruptcy with Chinese Characteristics: Insolvency Administration in the People's Republic of China*, 94 *AM. BANKR. L.J.* 85 (2020) 96.

creditors.¹⁷⁰ Indeed, these environmental costs are closely linked to people's lives and health. If an enterprise is unable to pay its debts as they fall due and its assets are insufficient to pay all of its claims or it clearly lacks the ability to pay and enters into bankruptcy liquidation proceedings, prior payment of claims for environmental costs is conducive to achieving a fair distribution in bankruptcy and protecting public interest.¹⁷¹ In particular, these environmental liabilities are paid for to avoid pollution and it will reduce the risk of pollution to the public.

In addition, the fact that environmental liabilities are paid upfront also means that the requirements of sustainable development are met.¹⁷² If environmental liabilities are not paid, much of the contaminated land will not be cleaned and the pollution created will persist, if not spread, which is unquestionably detrimental to sustainable development.

Lastly, the polluter pays principle has been accepted and implemented into Chinese environmental legislation.¹⁷³ Its purpose is to consign the responsibility of dealing with and preventing the worsening of pollution to the polluter.¹⁷⁴ Therefore, even if an enterprise becomes bankrupt or declares bankruptcy, it should still bear the corresponding environmental liability. Otherwise, the effect of simply not paying for environmental liability would be equivalent to allowing the enterprise to use bankruptcy to avoid assuming environmental responsibility, and therefore, the majority of such environmental responsibility would be passed yet again onto the state and wider society. This would inevitably make the use and subsequent abuse of environmental resource a free cost to the enterprise.¹⁷⁵ This is clearly not

¹⁷⁰ See Zhang Qinyu, *square note* 138, at 143.

¹⁷¹ See Qu Dongmei, *square note* 164, at 1815.

¹⁷² *Id.*

¹⁷³ See Evan Hamman, Liping Pei, Denise Burloff & Alexandra Lockhart, *The Polluter Pays Principle in Chinese Environmental Law*, 2 CJEL 57 (2018) 69-70.

¹⁷⁴ *Id.*

¹⁷⁵ See Qu Dongmei, *square note* 164, at 1815.

in line with the economic development policy in China which endeavors to balance the demands of both economic development and environmental protection.¹⁷⁶

Therefore, China's bankruptcy law must pay special attention to environmental liabilities in the course of bankruptcy liquidation. This can not only protect public interests and maintain social stability, but also help to implement sustainable development and the green economy.

4.3 Post-Liquidation

First and foremost, the subject of environmental liability remains unclear after the completion of the bankruptcy liquidation process. According to traditional company law theory, the subject of the company is dissolved upon the completion of bankruptcy liquidation, and its records are removed from the company registration system.¹⁷⁷ However, in many cases, environmental liability is hidden, and as such, it is difficult for administrative reorganization or judicial reorganization to supervise it.¹⁷⁸ The issues created by the emission of pollutants has not been resolved, but the bankrupt polluter is able to escape its environmental liability; with the government subsequently assuming such liability. Some scholars believe that the government should be the bearer of such environmental liability, as it is owing to government negligence that the polluting firms are able to escape their environmental liability.¹⁷⁹ However, this argument is unreasonable and seriously detrimental to both public interest and environmental sustainability.¹⁸⁰

¹⁷⁶ See China's National Development and Reform Commission, '14th Five-Year Plan for circular economy development'.

¹⁷⁷ See Company Law 2005, *square note* 127, art. 188.

¹⁷⁸ See Zhu Xiaoyan, *square note* 47, at 13

¹⁷⁹ See 肖艳玲 & 苗朝阳 [Xiao Yanling & Miao Chaoyang], *我国企业环境责任信息披露存在的问题及对策* [*Problems and Countermeasures of Enterprises Environmental Liability Information Disclosure in China*], 14 *经济研究* [Econ. Res.Gui.],15 (2017) 16.

¹⁸⁰ See Environmental Protection Law, *square note* 5, art 64.

Furthermore, there is no environmental liability relief system in China's bankruptcy law following the completion of the bankruptcy liquidation process. First of all, China's bankruptcy law has no established corporate representative system after the liquidation procedure has been completed. If the bankrupt polluter needs to assume environmental liability in the future upon completion of the liquidation process, in accordance with the polluter pays principle, then there will be a series of difficulties, such as the sourcing of funds and the manner of audit and audit personnel.¹⁸¹ In bankruptcy procedures, because of the supervision of the courts, creditors and administrator, even if there are various problems in practice, the different parties can negotiate and compromise with each other. However, if environmental liability has to be resolved following liquidation, it is difficult for the government or the environmental reorganization to submit an environmental claim. As such, China needs to establish a corporate representative system, which can represent the company in dealing with outstanding debts within a period after the completion of liquidation.¹⁸²

Moreover, the scope of the preservation system¹⁸³ is too narrow. Articles 118 and 119 of the Bankruptcy Law provide details of this preservation system. In accordance with the preservation system, the distribution shares of the bankruptcy property that have not been collected by creditors shall be preserved by the relevant bankruptcy administrator in advance. Where if the creditor did not collect bankruptcy properties or the action is not being settled as a creditor's right. The bankruptcy administrator shall distribute the preserved distribution share to other creditors. However, some pollution is often discovered after bankruptcy.¹⁸⁴ For example, at Wuhan brown site, the pollution was discovered a few years after the bankruptcy

¹⁸¹ See 肖理[Xiao Li], *破产公司环境侵权责任探析* [A Probe Into the Environmental Tort Liability of Bankrupt Company], 30 *法制博览* [Leg.Ver.] 86 (2015) 86.

¹⁸² *Id.* 87.

¹⁸³ The preservation system is often used for certain specific creditors, for example, *See* Enterprises Bankruptcy Law, square note 12, art. 117: as to any creditor's right subject to the requirement for effectiveness or rescission, a bankruptcy administrator shall preserve the distribution share in advance.

¹⁸⁴ *See* Xiao Li, square note 181, 87

of Wuhan Pesticide Factory. Even if the provincial government of Wuhan were to take a lawsuit for remediation of the brown site, they would not receive the compensation from Wuhan Pesticide Factory. This is not only detrimental to the protection of the interests of wider society, but it is also a violation of the polluter pays principle.¹⁸⁵ Therefore, if similar environmental liabilities are to be received in the future, the preservation system must expand its scope of application in the future, so that environmental liabilities are accounted for.

5. Solution – internalization of environmental costs in bankruptcy

5.1 Environmental Priority in the EBL

The order of priority in winding up is already accounted for in EBL (table I). In EBL, after paying the costs of the liquidation and first paying the debts incurred for the common good of creditors, the bankruptcy property will pay wages, employees' pensions, then the social insurance and taxes, followed by unsecured, no-preferential creditors.¹⁸⁶ The primary importance of realizing the polluter pays principle in bankruptcy cases is to establish the priority of environmental liabilities in the process of liquidation distribution. If the priority of environmental liability is feasible in winding up, the following issue deserve to be considered.

¹⁸⁵ See Zhu Xiaoyan, *square note 47*, at 67

¹⁸⁶ See Enterprises Bankruptcy Law, *square note 12*, art. 113.

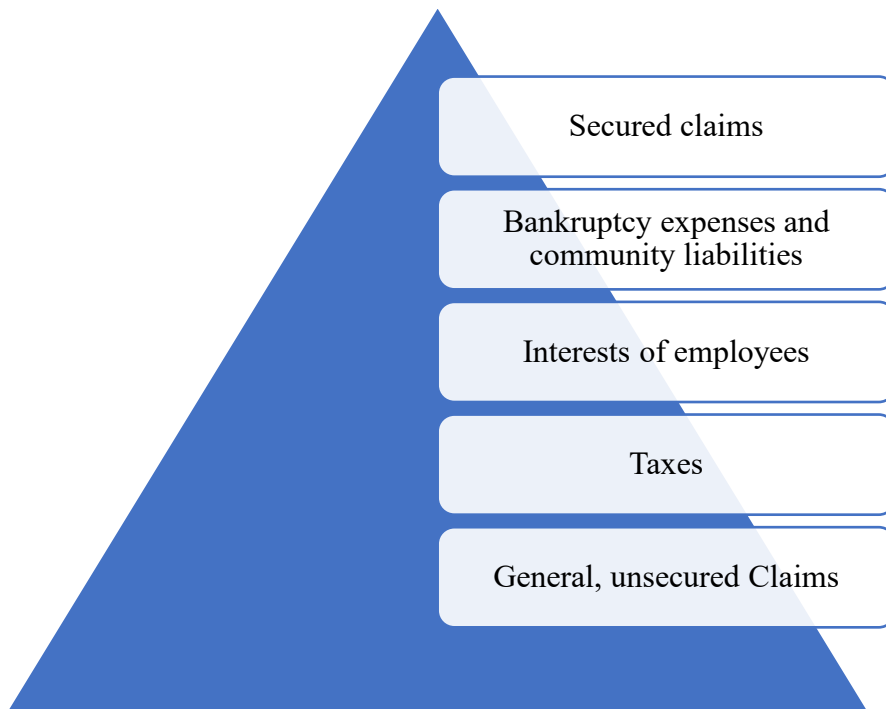


Table I: The existing the order of distribution in EBL

Firstly, the scope of environmental liability priority should be considered. The purpose of giving priority to environmental liability is to realize the internalization of the environmental cost. The cost should include environmental fines, in addition to foreseen environmental liability and unforeseen environmental liability.¹⁸⁷ Regarding the nature of environmental fines, there is an argument that these are merely administrative fines, rather than costs associated with actual environmental pollution.¹⁸⁸ However, the fines also cover the cost of environmental investigations carried out by the regulator, meaning that if the costs are not recoverable then the funds available to the regulator will have decreased.¹⁸⁹

¹⁸⁷ Foreseen liabilities: like the closure of a mine or landfill. Unforeseen liabilities: pollution incident.

¹⁸⁸ See 孙怀宁 & 杨关峰 [Sun Huaining & Yang Guanfeng], *管理人视角-企业破产程序中环境债权人权利研究* [Administrator's Perspective-- Research on Environmental Creditor's Rights in Enterprise Bankruptcy Procedure], 中伦 [Zhonglun Law Firm] Nov. 15, 2019, <http://www.zhonglun.com/Content/2019/11-05/1626406424.html>.

¹⁸⁹ *Id.*

Furthermore, if the distributable assets are not sufficient to cover the full environmental priority, the cost of environmental remediation should be paid in priority to environmental fines. The reason is that the implementation of administrative fines cannot change the pollution that the operator has caused; rather the administrative fine acts more like a warning notice issued by the regulator.¹⁹⁰ Giving priority to administrative fines will only add additional revenue to the government, with the revenue from fines not guaranteed for use on matters relating to environmental governance.¹⁹¹ However, the nature of other environmental liabilities that come at some actual cost to environmental governance, such as clean-up costs, restoration, and environmental damage that the debtor's operations has caused to adjoining property, are indeed different than administrative fines. These environmental liabilities should be given priority in liquidation since they are more closely linked to the cause of the pollution itself.¹⁹²

The order of priority given to environmental liability also warrants being discussed. Upon reading existing EBL, environmental liability can be recognized as a kind of community liability in China. The community liability has been interpreted as the liabilities arising from damage caused by a debtor's property.¹⁹³ In practice, some public interests have been confirmed as community liability in Chinese bankruptcy cases. For example, demolition compensation and resettlement¹⁹⁴ was recognized as community liability upon the bankruptcy of a real estate company.¹⁹⁵ The bankrupt's polluting behavior has the potential to cause extensive damage to the environment and poses a threat, directly or indirectly, to human health

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² This will be meet the requirement of the polluter pays principle.

¹⁹³ See Enterprises Bankruptcy Law, *square note* 12, art. 42.

¹⁹⁴ Demolition compensation and resettlement refer to the company that obtains the housing demolition and relocation permit to pay for the owner of the demolished house for the demolition compensation and resettlement.

¹⁹⁵ For example, in the bankruptcy case of 江苏涟水鑫鼎置业有限公司破产案[Jiangsu Lianshui Xin Ding Real Estate Co., Ltd.,] the administrator identified the resettlement costs of the demolished households as a community debt. Notice of recruitment of community debt lenders in bankruptcy cases issued on 19 January 2020.

(public interest), as has been argued in previous chapters.¹⁹⁶ Furthermore, if the polluter fails to meet its environmental obligations, it can be understood that the polluter saves itself the expenses of its environmental obligations, which can be recognized as ill-gotten gains.¹⁹⁷ Environmental liability can therefore be recognized as community liabilities in a broader sense. Lastly, the interests of employees have been a priority protection throughout the development of Chinese bankruptcy law, for example, both the EBL 1986 Trial and EBL 2006 placed specific emphasis on the interests of employees.¹⁹⁸ If the cost of environmental clean-up is too large, all bankruptcy properties will be used to pay for the cost of environmental remediation; which in turn is likely to mean that the interests of employees cannot or are less likely to be protected. It is worth noting that China's EBL provides a remedy for the interests of employees. Under Article 132 EBL, if bankruptcy properties are insufficient to pay employees in winding up, the realization of the secured property can be paid to the employees in priority.¹⁹⁹ Therefore, Chinese legislators should further improve on Article 132 in the subsequent amendments to EBL.

In summary, environmental liability cannot be classified as labor claims or taxes; instead, it can only be classified as common bankruptcy claims, or general and unsecured liability. Therefore, the order of environmental liability in the distribution should be raised (Table II) from the following aspects.

¹⁹⁶ See Sun Huaining & Yang Guanfeng, *square note* 188.

¹⁹⁷ *Id.*

¹⁹⁸ See Enterprise Bankruptcy Law Trial 1986, *square note* 20, art. 37; See Enterprises Bankruptcy Law, *square note* 12, art. 113.

¹⁹⁹ See Enterprises Bankruptcy Law, *square note* 12, art. 132.

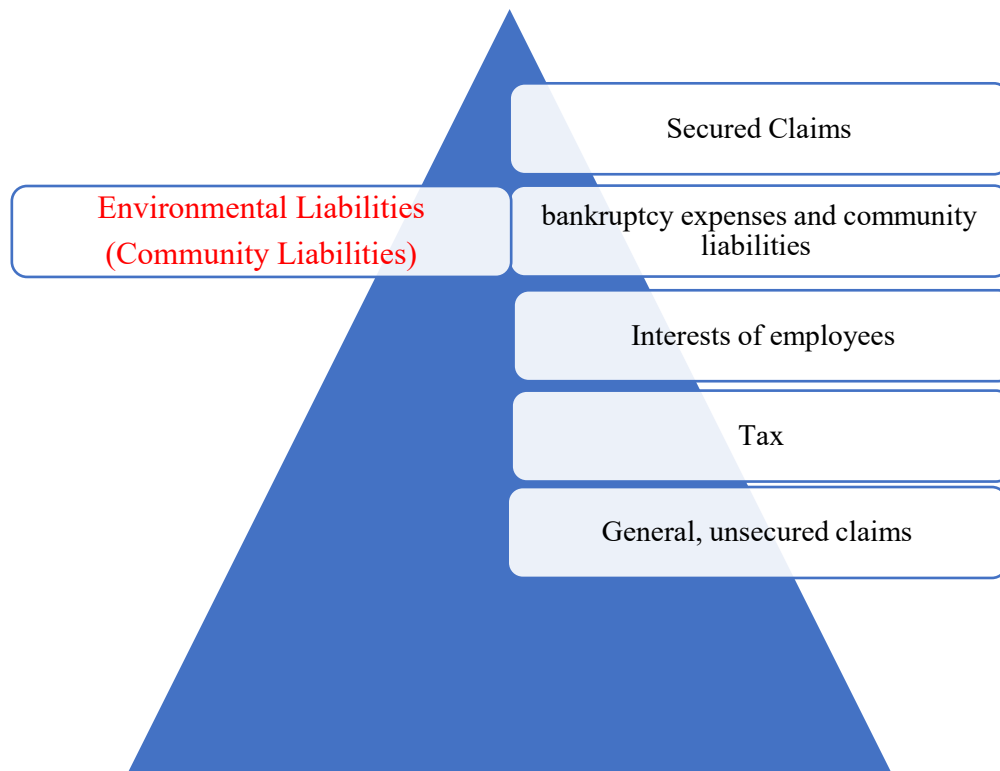


Table II: The proposed reform of the order of distribution in EBL

5.2 Environmental presentative and Notice Provision

Environmental liability is not mentioned in EBL, thus, the liquidator cannot pay adequate attention to the environmental liability of the bankrupt polluter as is needed. As such, EBL should establish a notice provision of environmental liability, as well as a system of environmental representatives. Environmental representatives should be civil servants in the local environmental protection authority of the People’s Government.

Enterprises engaged in activities of high-risk or those likely to cause substantial environmental pollution shall, at the time of bankruptcy, give the environmental protection department notice or an assessment of their existing acts of environmental concern and a complete organizational framework report. The contents of the report should include the legal entity of the enterprises involved, the polluting behavior, the fact, area, and extent of the pollution caused, as well as the cost of environmental clean-up and estimated cost of future remediation. This idea has been

practiced by other countries and supported by other scholars.²⁰⁰ Therefore, when the bankrupt enterprise files for bankruptcy, there is an obligation for the bankrupt enterprise to submit to the court an overview of its environmental pollution and a plan for the restoration of environmental issue in the future. After the bankruptcy filing is accepted by the court, the bankruptcy administrator shall be responsible for the specific implementation plan and timely report to the court and shall be subject to the supervision of the creditors' committee to ensure that environmental liability is internalized to the maximum extent.

Furthermore, EBL should confirm the identity of the environmental representative that will participate in future bankruptcy proceedings, such as the declaration of bankruptcy claims or meetings of creditors. The representative brings together the interests of contingent environmental creditors who declare and estimate their claims. The purpose is to ensure that future environmental creditors who are not involved in bankruptcy proceedings will also receive the same share of liquidation. Meanwhile, the position of environmental representatives shall be raised at the creditors committee. This provision should refer to the existing structure of the creditor committee whereby employee interest representatives have at least one seat on the creditor committee. Similarly, at least one person should be chosen to be an environmental representative if environmental liability is involved in the bankruptcy proceedings.

Lastly, the environmental representative should also be added to reorganization proceedings. The reorganization plan will comprise of a specific debt settlement plan and the debt voting group. The voting group should include an environmental liability group; in addition to a secured liability group; labor liability group; tax group and ordinary liabilities group. This

²⁰⁰ For example, Maria Cantwell United States Senator for Washington, 'Cantwell Hails ASARCO Superfund Clean-up Deal, Continues Push to Hold Corporate Polluters Accountable: Senator's legislation would close existing loopholes, keep corporate polluters from skipping town and sticking taxpayers with clean-up costs' (Press Release), Oct. 31, 2006, <http://cantwell.senate.gov/news/record.cfm?id=265566>. See Han Bing, *square note* 162, at 109.

means that the reorganization plan must be approved by the environmental liability group, which would be conducive to ensuring that environmental clean-up costs are paid after reorganization. Meanwhile, environmental liability should play a more dominant role in the restructuring process, as environmental representatives will now be members in the voting group.

5.3 Piercing the Corporate Veil

In some necessary cases, the scope of the entity of environmental liability needs to be expanded; for example, if the polluter deliberately files for bankruptcy in order to escape environmental liability, or if the pollution is caused by the polluter intentionally or negligently. In such instances, in accordance with the principle of joint and several liability, regulators could recover the environmental costs from the relevant corporate entity by way of individuals within the entity, such as executives and shareholders. At present, this view has been supported by some scholars, who have expressed that the veil of the corporation should be lifted in this kind of cases.²⁰¹ That is to say that joint and several liability is borne by the responsible shareholders of the company, which is not only conducive to the settlement of environmental liability, but also plays a warning role for shareholders to participate in the company's environmental protection and reasonable management. However, it is worth nothing that the extent to which successor entities should bear continuing responsibility should be limited in order to promote the healthy development of the economy.

Some experts agreed with the proposal to lift the veil of the corporation in order to protect the interests of creditors. In the view of Judge Li and Judge Zhang, the bankruptcy termination company is cancelled, and its entity no longer exists. Meanwhile, the appropriate continuation

²⁰¹ See Hui Huang, *Piercing the Corporate Veil in China: Where is it Now and Where is it Heading*, 60 AM. J. COMP. L. 743 (2012) 770.

of its entity will help to fulfil the liability arising from its polluting activity.²⁰² The continuation of its entity can also ensure the realization of the polluter pays principle and the internalization of environmental liabilities.²⁰³ Furthermore, the judges' view is that the will of the company is reflected by its executives, blindly emphasizing the company, which may in turn encourage the ill-behavior of executives, for example, earning income from operating environmental pollution risk business.²⁰⁴ Therefore, they suggest that in this case, executives or shareholders should be forced to assume environmental liability.²⁰⁵

The veil lifting in China was the first used as a statutory remedy in 2005, and was drafted into Chinese Company Law 2005. This legislation provides for the extension of the rights of creditors to pierce the corporate veil and to pursue all shareholders of a company, from single shareholder companies to listed firms.²⁰⁶ For example, Article 20 established a wide range of rights for creditors to pursue the debts of companies with limited liability and joint stock companies, including shareholders of listed public companies:

Where the shareholder of a company abuses the independent status of the company as a legal person or the limited liability of shareholders, evades debts and thus seriously damages the interests of the creditors of the company, he shall assume joint and several liability for the debts of the company.²⁰⁷

²⁰² See 李志 [Li Zhi], *破产程序中环境侵权债权实现之司法进路-以利益衡量为视角*[*The Judicial Approach to the Realization of Environmental Tort Creditor's Rights in Bankruptcy Procedure- From the Perspective of Interest Measurement*], (中国法学会环境资源法学研究会年会 [Ann. Conf. Chi. Soc. Envir. Rsc. L.], 2019) <http://61.181.120.82:8080/kcms/detail/detail.aspx?filename=FXHJ201910003012&dbcode=CPFD&dbname=C PFD2021>.

²⁰³ *Id.*

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ See Kimberly Bin Yu & Richard Krever, *The High Frequency of Piercing the Corporate Veil in China*, 23 *Asia PAC. L. REV.* 63 (2015) 65.

²⁰⁷ See Company Law 2005, *square note* 127, art. 20

Furthermore, Article 64 also imposes requirements on companies with a single shareholder, it states,

Where the shareholder of a one-person company with limited liability cannot prove that the property of the company is independent of his own property, he shall assume the joint and several liability for the debts of the company.²⁰⁸

The veil piercing rule is strictly applied in the Company Law of other jurisdictions, though not very common. In contrast, Articles 23 and 64 of the Chinese Company Law results in the corporate veil being pierced far more frequently in China than in other jurisdictions.²⁰⁹ Articles 20 and 64 also provide a means for achieving the internalization of environmental liability in bankruptcy proceedings. In bankruptcy cases, where a company's shareholders have deliberately transferred property to escape environmental liability or where company accounts are mixed with private accounts, the corporate veil can be pierced, thus meaning that shareholders would be expected to cover the costs of the company's environmental liability.

6. Conclusion

The polluter pays principle is explicitly detailed within Chinese environmental legislation, but this principle has been challenged in the context of bankruptcy law. In practice, environmental costs have been transferred to society in bankruptcy proceedings, with many contaminated sites not having been cleaned up post-liquidation. Some companies use bankruptcy regime to escape their environmental responsibilities. The enactment of EBL was a success in that it solved the problem of bankruptcy in China. However, EBL has now become a haven for polluters insofar as environmental resources have become a somewhat free cost for companies under the bankruptcy framework in China. From the perspective of the polluter pays principle, EBL has

²⁰⁸ *Id* art. 64.

²⁰⁹ See Kimberly Bin Yu & Richard Krever, *square note* 206, 82.

thus revealed a number of problems, such as a lack of environmental representation in bankruptcy proceedings, as well as environmental liabilities not being given priority in the winding up process. EBL should consider several changes in order to realize the internalization of environmental costs, such as giving priority to environmental liability in winding up and increasing the presence of environmental representatives in bankruptcy proceedings, which are recommendations on bankruptcy proceedings. Meanwhile, the corporate entity post-liquidation is also an important way to internalize environmental costs. Therefore, the corporate veil should be lifted when there is sufficient evidence that a company's shareholders have deliberately transferred property to avoid environmental liability, or that corporate accounts have been mixed with private accounts.