

TRANSBOUNDARY WATER POLLUTION IN CHINA

An Analysis of the Failure of the Legal Framework to Protect Downstream Jurisdictions

ZACHARY TYLER*

I. INTRODUCTION	573
A. TRANSBOUNDARY WATER POLLUTION IN CHINA.....	573
B. THE WATER CRISIS IN CHINA	574
II. CHINA'S LEGAL SYSTEM.....	575
A. THE CONSTITUTIONAL, LEGAL AND ADMINISTRATIVE FRAMEWORK	575
B. SYSTEMIC PROBLEMS	580
III. MAJOR LAWS AND REGULATIONS FOR CONTROLLING TRANSBOUNDARY WATER POLLUTION	586
A. OVERVIEW.....	586
B. THE REGULATION OF TRANSBOUNDARY WATER POLLUTION	586
1. Environmental Protection Law.....	586
2. Water Pollution Prevention and Control Law	587
3. Water Law	590
C. THE FAILURE OF THE LEGAL REGIME TO EFFECTIVELY CONTROL TRANSBOUNDARY WATER POLLUTION	593
1. SEPA's Lack of Enforcement Capacity	593
2. Power of Local Government over EPBs and Enforcement Activities.....	595
3. Failure to Create Accountability	596
4. Lack of Coordination	597
5. Ineffective Management Responsibilities and Policy Direction	597
6. Dispute Resolution	599
IV. CASE STUDIES.....	603

* Georgetown University Law Center, J.D. expected 2006. The author would like to thank Professor Robert Percival for his help and encouragement in the development of this Note.

A. THE HUAI RIVER.....	603
B. PRIVATE PARTY ATTEMPTS TO CONTROL TRANSBOUNDARY POLLUTION	608
V. RECOMMENDATIONS.....	610
 I. INTRODUCTION	

A. *Transboundary Water Pollution in China*

The epic proportions of China’s water pollution problems transcend many of the nation’s jurisdictional boundaries. The rapid growth of transboundary water pollution mirrors the ferocious growth that the economy has undergone since the Chinese leadership began a series of economic reforms in 1978. The accumulation and discharge of pollutants into the waters of many upstream regions has wrought environmental havoc in downstream jurisdictions,¹ creating inequities in distribution similar to the uneven nature of the nation’s economic development. China’s response to the growing problems of transboundary water pollution reflects the problems and challenges that its nascent environmental legal regime faces, and the attempts to resolve transboundary water pollution disputes have largely been played out as but one part of China’s greater endeavors to adapt its administrative structure and legal regime to the rapid transformation that the country is undergoing. Transboundary water pollution in China therefore provides an excellent window into many issues that span the nation’s reform efforts as well as serving to illustrate both the inadequacies and improvements in China’s regulatory regime for environmental protection.

This Note will analyze the law of transboundary water pollution currently in force in China. The foundation for understanding this subset of China’s environmental crisis will be laid by first providing an overview of the basic structure of China’s political and legal structure. Certain systemic challenges and characteristics of the Chinese system that affect virtually all legal, political, and administrative activities will also be addressed to highlight the fact that many of the problems to be dealt with in resolving the phenomenon of transboundary water pollution are not unique to that particular subset of Chinese environmental law, but

¹ ASIAN DEVELOPMENT BANK, REFORM OF ENVIRONMENTAL AND LAND LEGISLATION IN THE PEOPLE’S REPUBLIC OF CHINA 49 (2000); Edwin D. Ongley & Xuejun Wang, *Transjurisdictional Water Pollution Management in China: The Legal and Institutional Framework*, WATER INTERNATIONAL, Sept. 2004, at 270; Benjamin L. Liebman, *Autonomy Through Separation?: Environmental Law and the Basic Law of Hong Kong*, 39 HARV. INT’L L. J. 231, 297 (1998).

rather are germane to many of the hurdles China must overcome. This Note then turns to the legal framework for water law, water pollution control, and transboundary pollution, including an analysis of the major problems the current system possesses for dealing with transboundary pollution. Several case studies will be relied upon to illustrate the successes and failures in attempting to control transboundary water pollution. Lastly, this Note will end with a series of recommendations for improving the legal and administrative system for controlling transboundary water pollution in China.²

B.. The Water Crisis in China

China faces one of the greatest water crises in the world.³ Severe shortages afflict much of the country and increased pollution levels significantly degrade the quality of available water.⁴ Much of China is naturally disadvantaged at the outset because water resources are unevenly spread over the country.⁵ Southern China (the area south of the Yangtze River) contains 53.5 percent of the nation's population and 36.5 percent of its territory, but possesses 80.9 percent of the nation's water resources.⁶ Northern China, on the other hand, with 46.5 percent of the population and 63.5 percent of the territory, contains only 19.1 percent of the country's total water resources.⁷ Overall, China possesses 2300 cubic meters of water per capita, one-fourth of the world average.⁸

Agriculture utilizes the greatest amount of water, followed by industry, and then domestic household use.⁹ According to a World Bank study, the primary sources of water pollution are discharges of industrial and municipal wastewater, followed by agricultural runoff from chemical fertilizers as well as pesticides and animal manure, and finally solid waste

² Transboundary water pollution in China is by no means a problem that is contained solely within the borders of the country. China is implicated in numerous international transboundary water pollution issues, many of which are intertwined with themes to be discussed in this Note. However, the scope of this Note will be restricted to domestic transboundary water pollution within the context of "mainland" China. The Hong Kong and Macao Special Administrative Regions and Taiwan will not be included in the analysis.

³ Patricia Wouters et al., *The New Development of Water Law in China*, 7 U. DENV. WATER L. REV. 243, 250 (2004).

⁴ WORLD RESOURCES INSTITUTE, WORLD RESOURCE 1998-99: A GUIDE TO THE GLOBAL ENVIRONMENT 120 (1998).

⁵ *Id.*

⁶ Wouters et al., *supra* note 3, at 250.

⁷ *Id.*

⁸ Xinhuanet, *Water Pollution Worsening: Environment Watchdog*, XINHUA, Mar. 23, 2005, <http://www.mwr.gov.cn/english/1/20050323/49246.asp>.

⁹ PRC Ministry of Water Resources, *China Water Resources Bulletin* (2002), at http://www.shuiziyuan.mwr.gov.cn/gongshi/show_gazettea.asp?id=208 (Chinese version only).

leaching.¹⁰ Substantial diversion of surface water worsens the effect of the discharge of pollutants.¹¹

The results have been devastating. In urban areas, over 75 percent of the river water is unsuitable for consumption or fishing.¹² Of the twenty-seven largest cities in China, the drinking water in only six meets state standards.¹³ Additionally, over 300 million people in rural areas lack suitable drinking water.¹⁴ In 2002, the State Environmental Protection Administration (SEPA) reported that in five of the seven major river systems, over 70 percent of the water was not adequate for human contact (grade IV or worse).¹⁵ A recent study found over 50 percent of fifty-two lakes to be heavily polluted and 35 percent of groundwater unsuitable for human consumption.¹⁶ Moreover, demand for water is growing annually by 10.1 percent in urban areas and by 5.4 percent for industrial purposes.¹⁷ A vice minister for construction recently stated that cities in China are facing a water shortage of over six billion cubic meters.¹⁸

The effects of this severe pollution have by no means been confined to areas within China's provincial borders. All of China's major river systems cross provincial boundaries, and transboundary water pollution is a widespread and rampant phenomenon.¹⁹

II. CHINA'S LEGAL SYSTEM

A. *The Constitutional, Legal and Administrative Framework*

Numerous government entities contribute to environmental lawmaking in China.²⁰ At the top of the Chinese legal hierarchy sits the National People's Congress (NPC). As the highest body of legislative and state power, the Constitution vests the NPC with the power to enact

¹⁰ WORLD BANK, *CLEAR WATER, BLUE SKIES* 90 (1997).

¹¹ See Wouters et al., *supra* note 3, at 251.

¹² ELIZABETH ECONOMY, *THE RIVER RUNS BLACK* 18 (2004).

¹³ *Id.* at 69.

¹⁴ Xinhuanet, *300 Mln Rural Chinese Lack Clean Drinking Water*, XINHUA, Mar. 23, 2005, <http://www.mwr.gov.cn/english/20050323/49251.asp> [hereinafter *300 Mln Rural Chinese Lack Clean Drinking Water*].

¹⁵ ECONOMY, *supra* note 12, at 69.

¹⁶ *300 Mln Rural Chinese Lack Clean Drinking Water*, *supra* note 14.

¹⁷ ECONOMY, *supra* note 12, at 68.

¹⁸ Xinhuanet, *Huge Water Shortage Threatens Chinese Cities: Official*, XINHUA, Mar. 23, 2005, <http://www.mwr.gov.cn/english/20050232/49250.asp>.

¹⁹ See *infra* e.g., Section IV, Huai River and Transboundary Cases.

²⁰ See William P. Alford & Yuanyuan Shen, *Limits of the Law in Addressing China's Environmental Dilemma*, 16 STAN. ENVTL. L. J. 125, 127 (1997) (citing at least eleven sources of environmental law).

and amend the nation's "basic laws" (基本法), supervise their implementation, and amend the Constitution.²¹ As the NPC only meets in full once per year (usually for approximately three weeks in March), the Standing Committee of the NPC is charged with the power to enact and amend all national statutes except for the "basic laws" when the NPC is not in session.²² The NPC is also permitted to establish specialized committees to assist in the development and analysis of laws.²³ To date, nine special committees exist, including the Environment and Natural Resources Protection Committee.²⁴

Although the NPC is the supreme lawmaking body, it is by no means the only state organ that plays a prominent role in promulgating national legislation.²⁵ The main administrative and executive body in the Chinese central government is the State Council,²⁶ which is comprised of the premier and the heads of the central government ministries and departments. The State Council enjoys vast powers, including the authorization to: (1) promulgate national regulations as well as approve national regulations submitted to it, (2) issue decisions mandating compliance with the Constitution and other statutes, (3) review proposed legislation before referring it to the NPC or Standing Committee, and (4) supervise the ministries and other government bodies below it.²⁷ Thus, the State Council, with the combined powers of the heads of the national administrative state, wields considerable influence over the administration and execution of the central government's authority.

Below the State Council in the central government hierarchy are numerous ministries, bureaus, and commissions. SEPA and the Ministry of Water Resources (MWR) most prominently affect transboundary water issues.²⁸ The ministries and other departments administer the laws and regulations in their delegated field, and may promulgate their own regulations as well.²⁹

²¹ 宪法 [Const.] art. 62 (1982) (P.R.C.).

²² *Id.* at art. 67.

²³ *Id.* at art. 70.

²⁴ NATIONAL PEOPLE'S CONGRESS, NATIONAL PEOPLE'S CONGRESS SPECIAL COMMITTEES, http://www.npc.gov.cn/zgrdw/jgszjry/lm_zmwyh.jsp?lmid=1105&dm=110504&pdmc=110504.

²⁵ Bradley Klein, *Democracy Optional: China and the Developing World's Reaction to the Washington Consensus*, 22 UCLA PAC. BASIN L. J. 89, 100 (2004) (citing 328 laws and decisions enacted by the NPC between 1979 to 1997, 770 administrative regulations enacted by the State Council, over 5200 local regulations enacted by local congresses, and over 24,000 ministry enactments).

²⁶ 宪法 [Const.] art. 86 (1982) (P.R.C.).

²⁷ *Id.* at art. 89.

²⁸ Ongley & Wang, *supra* note 1, at 272-73.

²⁹ 宪法 [Const.] art. 90(2) (1982) (P.R.C.); *see also* 立法法 [Law on Legislation] art. 71 (promulgated by the Standing Comm. Nat'l People's Cong., Mar. 15, 2000, effective July 1, 2000) 2000 全国人民代表大会常务委员会公报 [STANDING COMM. NAT'L PEOPLE'S CONG. GAZ.] 112

As the premier environmental and water-related government entities, one of the main functions of SEPA and the MWR is to draft environmental and water resource laws and regulations.³⁰ Given the youth of environmental legislation in China, SEPA's status has risen considerably in recent years, most notably when it attained full ministerial rank during the government restructuring in 1998.³¹ SEPA's other responsibilities include developing and implementing national pollution control plans, ecological and wetland conservation, protecting the marine environment, desertification control and prevention, developing national environmental quality standards, environmental monitoring and data, and conducting environmental impact analysis of major policies.³²

In 2002, SEPA established the Environmental Emergency and Incident Investigation Center in order to, among other functions, coordinate the resolution of transboundary environmental disputes.³³ SEPA's activities, however, are mainly restricted to its headquarters in Beijing, where with a staff of only 300 it is woefully incapable of addressing the many environmental issues needed to be handled on the national level. More importantly, SEPA does not possess the power to carry out enforcement activities.³⁴ Those powers are delegated to the Environmental Protection Bureaus (EPBs) at the provincial and local levels.³⁵ As will be discussed below, this separation of national legislation and policy planning from enforcement powers has severely handicapped SEPA's ability to act effectively, and contributes significantly to China's major enforcement and compliance problems.

The MWR is a much older, traditional government ministry within the central government framework. It is charged with managing the nation's water resources.³⁶ Its duties include formulating policies,

(P.R.C.), available at http://www.novexc.cn/legislat_law_00.html (last visited Mar. 27, 2006); Richard J. Ferris Jr. & Hongjun Zhang, *Reaching out to the Rule of Law: China's Continuing Efforts to Develop and Effective Environmental Law Regime*, 11 WM. & MARY BILL RTS. J. 569, 578-79 (2003).

³⁰ ECONOMY, *supra* note 12, at 106; PRC Ministry of Water Resources, Introduction (Mar. 27, 2006), <http://www.mwr.gov.cn/jieshao.htm>.

³¹ See also XIAOYING MA & LEONARD ORTOLANO, ENVIRONMENTAL REGULATION IN CHINA: INSTITUTIONS, ENFORCEMENT AND COMPLIANCE 80 (2000).

³² Jolene Lin Shuwen, *Assessing the Dragon's Choice: The Use of Market-Based Instruments in Chinese Environmental Policy*, 16 GEO. INT'L. ENVTL. L. REV. 617, 622-23 (2004).

³³ See generally Ferris & Zhang, *supra* note 29, at 593. It is uncertain what activities the center has undertaken, and whether it has been involved in any transboundary pollution disputes. A description of the center's functions is available at <http://www.sepa.gov.cn/eic/649926825031499766/20040109/1044854.shtml> (Chinese only) (last visited Mar. 24, 2005).

³⁴ See Ongley & Wang, *supra* note 1, at 273 (stating that SEPA "has no operational responsibility").

³⁵ See *infra* Part II.2, Systemic Problems.

³⁶ 中华人民共和国水法 [Water Law of the People's Republic of China] art. 12 (promulgated by the Standing Comm. of the Nat'l People's Cong., Jan. 21, 1988, revised Aug. 29, 2002, effective Oct. 1,

developing strategies and development plans for water resource management and conservation, developing water resource legislation, implementing the water permit system and fee system, as well as a host of other water resource regulatory implementation and managerial tasks.³⁷ The MWR enjoys more direct control on the ground than SEPA because it supervises the activities of Water Resource Bureaus (WRBs) at the provincial and local levels.³⁸

Below the central government are the provincial, autonomous region, and special municipality governments. China has twenty-three provinces, five autonomous regions, four centrally administered municipalities (Beijing, Shanghai, Tianjin and Chongqing) (this paper will use the term "provinces" in discussing these three types of entities), and two special administrative regions (Hong Kong and Macao).³⁹ The chief lawmaking institutions in provinces are the provincial people's congresses.⁴⁰ Provincial level counterparts of the central government ministries also exist. Provincial EPBs oversee enforcement activities across the province.⁴¹ Provinces exert particularly strong influence on the implementation and execution of laws, including often advancing policies that are counter to the policies of the central government.⁴² As Clarke has commented, the considerable autonomy enjoyed by sub-national governments has given rise to concern about China's ability to implement national legislation.⁴³

The county and township governments occupy the lowest level of government authority but play an extremely important role in running the day-to-day administration of the county or township. County and township-level EPBs are authorized to carry out enforcement activities against local polluters. Local authorities may determine their own standards as long as they at least meet national standards.⁴⁴ This has

2006) (P.R.C.), available at http://www.gov.cn/english/laws/2005-10/09/content_75313.htm (last visited Feb. 21, 2006) [hereinafter Water Law].

³⁷ See Ministry of Water Resources, Main Responsibilities, <http://www.mwr.gov.cn/jieshao.htm> (Chinese version); Wouters et al., *supra* note 3, at 289-91.

³⁸ Ongley & Wang, *supra* note 1, at 273, 275.

³⁹ United States Department of State, Background Note: China, <http://www.state.gov/r/pa/ei/bgn/18902.htm> (China considers Taiwan its twenty-third province) (last visited Mar. 28, 2006).

⁴⁰ Perry Keller, *Sources of Order in Chinese Law*, 42 AM. J. COMP. L. 711, 736 (1994).

⁴¹ MA & ORTOLANO, *supra* note 31, at 55, 60-63.

⁴² W. Scott Railton, *The Rhetoric and Reality of Water Quality Protection in China*, 7 PAC. RIM. L. & POL'Y J. 859, 871-72 (1998); see Tahirih V. Lee, *The Future of Federalism in China*, in THE LIMITS OF THE RULE OF LAW IN CHINA 271, 294-95 (Karen G. Turner et al. eds., 2000); See Donald Clarke, *China's Legal System and the WTO: Prospects for Compliance*, 2 WASH. U. GLOBAL STUD. L. REV. 97, 108 (2003) [hereinafter Clarke, *China's Legal System and the WTO*].

⁴³ Clarke, *China's Legal System and the WTO*, *supra* note 42, at 107-08.

⁴⁴ In the government hierarchy, lower levels are generally permitted to promulgate their own standards and regulations as long as they do not conflict with laws and regulations issued by higher authorities.

allowed local governments to flexibly adapt legal requirements to each area's unique circumstances. However, county and township governments often attempt to carry out policies that not only run counter to national policies, but also directly run afoul of provincial government mandates.⁴⁵ As will be discussed below, one of the central reasons for the failures of enforcement and compliance is the level to which local authorities have successfully thwarted enforcement activities in order to diminish potential harm to the local economy.

The court system plays an increasingly important role in lawmaking in China. The highest court in the land is the Supreme People's Court, which is authorized to issue interpretations of law binding on the lower courts.⁴⁶ Below the Supreme People's Court, there are three levels of courts: Higher People's Courts, Intermediate People's Courts, and Basic People's Courts.⁴⁷ Cases are heard in three different formats. Minor civil or criminal cases can first be heard before one judge. Alternatively, cases may be tried by a panel of three judges. Finally, the highest body in a court, the Adjudication Committee, can order judges or panels to change their decisions if it wishes.⁴⁸ Most environmental cases begin at the Basic People's Courts.⁴⁹

Lastly, although China is by no means the centrally planned country that it was in the past, the Chinese Communist Party (CCP or Party) continues to hold considerable sway over life in China. From the highest echelons of power to the lowest levels of government authority, virtually all important decision-makers in China are Party members. The Central Committee of the CCP plays a leading role in determining the legislative and policy agenda. Through its overwhelming domination in the political, legal, economic and social arenas, the presence of the Party continues to be felt in most facets of life in China.⁵⁰ Though the link with

⁴⁵ See *infra* Part III.3. See also Randall Peerenboom, *Seek Truth from Facts: An Empirical Study of Enforcement of Arbitral Awards in the PRC*, 49 AM. J. COMP. L. 249, 276-79 (2001) (for a discussion of this phenomenon in the context of local resistance to the enforcement of arbitral awards) [hereinafter Peerenboom, *Seek Truth from Facts*].

⁴⁶ 中华人民共和国人民法院组织法 [Organic Law of the People's Courts of the People's Republic of China] arts. 32, 33 (promulgated by the Standing Comm. Nat'l People's Cong., effective July 1, 1979, revised Sept. 2, 1983, effective Sept. 2, 1983) 全国人民代表大会常务委员会公报 [STANDING COMM. NAT'L PEOPLE'S CONG. GAZ.] (P.R.C.). The NPC Standing Committee is also charged with interpreting statutes under the Constitution. See generally Peter Howard Corne, *Creation and Application of Law in the PRC*, 50 AM. J. COMP. L. 369 (2002).

⁴⁷ SUSAN FINDER, *Court System*, in *DOING BUSINESS IN CHINA* ch. 2.1, 7-8 (Freshfields ed., 2004).

⁴⁸ Donald Clarke, *Power and Politics in the Chinese Court System: The Enforcement of Civil Judgments*, 10 COLUM. J. ASIAN L. 1, 10-11 (1996) [hereinafter Clarke, *Power and Politics*].

⁴⁹ See generally Donald Clarke, *Dispute Resolution in China*, 5 J. CHINESE L. 245 (1991) [hereinafter Clarke, *Dispute Resolution in China*]. See also Clarke, *Power and Politics*, *supra* note 48 and FINDER, *supra* note 47, for a detailed discussion of the Chinese judicial system.

⁵⁰ FINDER, *supra* note 47, at 10-12, 17.

transboundary water pollution problems is not immediately obvious from this fact, the Party's impact plays out in the internecine struggles between local authorities and higher level authorities over the enforcement of environmental regulations, the regional struggles to attract investment and protect local businesses, and in the Party's presence in the judiciary.⁵¹

B. Systemic Problems

In order to better ascertain the dilemma of transboundary water pollution, it is important to consider some of the systemic difficulties that afflict many of the legal, political, and economic challenges that China faces. While these characteristics greatly aggravate the degradation of China's environment, they are not unique to environmental protection or transboundary pollution. To a great extent, the alleviation of many of China's severe pressures on its environment may arise as much from the resolution of some of these fundamental and widespread problems as from the resolution of defects particular to the environmental arena.

One of the greatest criticisms is that China suffers from a generally weak legal and regulatory regime. This critique can be roughly divided into two parts: first, a weakness in the drafting, resulting in vague laws and regulations; and second, a poor track record for enforcement.⁵² Chinese laws have often been criticized as overly broad, vague, and aspirational in nature.⁵³ Laws are promulgated with little substantive content, and it may be years before more specific implementing regulations are forthcoming. Even when implementing regulations are issued, the targets, details, deadlines, and conditions still may be insufficient.⁵⁴ As Alford and Shen have noted with respect to environmental laws, "[t]he vagueness of these laws makes it difficult to determine just what is prohibited; consequently, it is unclear whether they have the potential to curtail specific behavior, cabin government discretion, and provide predictability for business."⁵⁵ This observation

⁵¹ For example, there are CCP organizations in every court and potential judicial appointees are first reviewed by the CCP Organizational Department. *See id.* at 11.

⁵² STANLEY B. LUBMAN, *Introduction to DOING BUSINESS IN CHINA*, *supra* note 47, at 27-30, 38 [hereinafter LUBMAN, *DOING BUSINESS IN CHINA*]; Pitman Potter, *Legal Reform in China: Institutions, Culture and Selective Adaptation*, 29 LAW & SOC. INQUIRY 465, 466 (2004).

⁵³ *See* Stanley B. Lubman, *Bird in a Cage: Chinese Legal Reform After Twenty Years*, 20 NW. J. INT'L. L. & BUS. 383, 391 (2000), suggesting that Chinese drafters intentionally word legislation in broad and vague terms so as to confer greater discretion on administrators and agencies to implement the legislation as they see fit. *See also* PETER HOWARD CORNE, *FOREIGN INVESTMENT IN CHINA: THE ADMINISTRATIVE LEGAL SYSTEM* 56 (1997); Claudia Ross & Lester Ross, *Language and Law: Sources of Systemic Vagueness and Ambiguous Authority in Chinese Statutory Language*, in *THE LIMITS OF THE RULE OF LAW*, *supra* note 42, at 223.

⁵⁴ LUBMAN, *DOING BUSINESS IN CHINA*, *supra* note 52, at 27-28.

⁵⁵ Alford & Shen, *supra* note 20, at 135.

holds true for other legislative realms as well.⁵⁶ In the transboundary water pollution context, the problem is evident in the confusing manner by which the major statutes addressing water pollution separately address transboundary issues, watershed management, and the delegation of authority.⁵⁷

A related problem that frustrates both environmental law and other regulated communities is the existence of persistent gaps that remain in the statutory framework. Ferris and Zhang found that such gaps mean that significant fields and areas of activity do not have national standards governing them.⁵⁸ This phenomenon leads to unbridled discretion in local authorities in addressing this statutory gap, and more often than not translates into continued environmental degradation going unchecked because local governments put economic goals ahead of environmental priorities.⁵⁹ Such a gap is particularly evident in the area of transboundary water pollution regulation. Lacking any unified or specific regulatory framework of its own, the tangential treatment that the field has received has resulted in a widespread failure to effectively manage watersheds and inter-provincial pollutant discharge.⁶⁰

A generally weak system of fines for pollutant discharges also establishes significant roadblocks to an effective environmental protection regime. Primarily, fees are too low. Estimates suggest that effluent fees comprise less than 5 percent of the costs of treatment, with a similar dilemma in the system for levying fines.⁶¹ The example of fines for excess air pollutant discharges illustrates the weakness of the system. Although fees exist for approximately twenty air pollutants, when discharges from one source exceed the limits for multiple pollutants, the polluter is only required to pay fees for the pollutant most in excess of the limits.⁶² Thus, while the polluter must pay a fee for the largest pollutant,

⁵⁶ See also *id.* at 130-34, discussing inconsistencies in other environmental laws; See, e.g., RANDALL PEERENBOOM, CHINA'S LONG MARCH TOWARD RULE OF LAW 463 (2002).

⁵⁷ See 中华人民共和国水污染防治法 [Law of the People's Republic of China on Prevention and Control of Water Pollution] (promulgated by the Standing Comm. Nat'l People's Cong., May 11, 1984, revised May 15, 1996, effective May 15, 1996) 1996 全国人民代表大会常务委员会公报 [STANDING COMM. NAT'L PEOPLE'S CONG. GAZ.] 4 (P.R.C.), available at <http://www.sinoitaenvironment.org/ReadNewsex1.asp?NewsID=227> (last visited Feb. 21, 2006), arts. 10, 17 [hereinafter WPPCL]; Water Law, *supra* note 36, at arts. 14-17.

⁵⁸ Richard J. Ferris Jr. & Hongjun Zhang, *The Challenges of Reforming an Environmental Legal Culture: Assessing the Status Quo and Looking at Post-WTO Admission Challenges for the People's Republic of China*, 14 GEO. INT'L ENVTL. L. REV. 429, 440 (2002).

⁵⁹ ECONOMY, *supra* note 12, at 101-03; Zunxuan "Digger" Chen, *Tackling China's Water Pollution Problem: A Legal and Institutional Perspective from Taihu Lake Water Pollution Control*, 24 TEMP. J. SCI. TECH. & ENVTL. L. 325, 339 (2005); Liebman, *supra* note 1, at 297-99.

⁶⁰ See *infra* Part III; Liebman, *supra* note 1, at 297.

⁶¹ Alford & Shen, *supra* note 20, at 137.

⁶² Shuwen, *supra* note 32, at 650.

the fees for the lesser excess emissions are waived.⁶³ Under this system, many of the most egregious polluters get away with only a slap on the wrist and no incentive to reform their production processes and reduce emissions.⁶⁴ Water pollutant discharge fees equally suffer from this defect, and the problem is aggravated by the artificially low prices for water use.⁶⁵

The inability of the fee system to create an incentive for pollution abatement is coupled with an even weaker track record in enforcement.⁶⁶ As the economic reforms took hold across China, regions, counties, and townships vied for coveted foreign investment dollars, and many government authorities openly flouted the directives of higher government entities in order to secure economic advancement for their locality.⁶⁷ The severe enforcement difficulties that have handicapped legal requirements to crack down on polluters is a phenomenon seen in numerous other sectors,⁶⁸ and is a systemic dilemma that many argue China must overcome if its reform efforts are to continue successfully.⁶⁹ The lack of enforcement of water pollution controls is one of the root causes of China's transboundary water pollution crisis.

Integral to the enforcement crisis are endemic problems of local protectionism⁷⁰ and corruption. Corruption is rampant and has been described by some as one of the greatest barriers to China's reform process.⁷¹ Problems of corruption and local protectionism are exacerbated by a lack of coordination across jurisdictions and power struggles between local authorities and the central government. Many ministries and other government departments have overlapping duties that often result in bureaucratic turf wars and a policymaking quagmire.⁷² Alford and Shen cite the example of the joint responsibility of eight different ministries and commissions in the central government for the

⁶³ *Id.*

⁶⁴ MA & ORTOLANO, *supra* note 31, at 122.

⁶⁵ See Shuwen, *supra* note 32, at 650; MA & ORTOLANO, *supra* note 31, at 21-24; see generally WORLD BANK, VALUING WATER FOR CHINESE INDUSTRIES: A MARGINAL PRODUCTIVITY ASSESSMENT (1999) (arguing that raising water prices would increase water conservation).

⁶⁶ ECONOMY, *supra* note 12, at 199-200; Alford & Shen, *supra* note 20, at 142-43.

⁶⁷ LUBMAN, DOING BUSINESS IN CHINA, *supra* note 52, at 31-33.

⁶⁸ See, e.g., WILLIAM ALFORD, TO STEAL A BOOK IS AN ELEGANT OFFENSE (1995) and Charles L. Miller II, *A Cultural and Historical Perspective to Trademark Law Enforcement in China*, 2 BUFF. INTELL. PROP. L. J. 103 (2004) for discussions in enforcement difficulties regarding intellectual property rights.

⁶⁹ See, e.g., LUBMAN, DOING BUSINESS IN CHINA, *supra* note 52, at 48-50.

⁷⁰ See Peerenboom, *Seek Truth from Facts*, *supra* note 45, at 276-79.

⁷¹ See, e.g., Clarke, *Dispute Resolution in China*, *supra* note 49, at 261.

⁷² Alford & Shen, *supra* note 20, at 139. See also Daniel C.K. Chow, *Counterfeiting in the People's Republic of China*, 78 WASH. U. L. Q. 1, 21-22 (2000).

implementing China's treaty obligations under the Montreal Protocol.⁷³ Administrative inconsistencies as a result of poor coordination are common.⁷⁴

In the environmental context, SEPA's function as a national policymaker without enforcement capabilities has left the power of enforcement to the discretion of local authorities who are often loathe to crack down on polluters because of the perceived negative economic effects.⁷⁵ The provincial and local EPBs are charged with enforcing environmental laws and regulations, but these efforts are frequently frustrated because those EPBs must answer to the corresponding local government.⁷⁶ Thus, if local authorities deem environmental enforcement as threatening to the local economy (and also, in circumstances where corruption flourishes, to the local authorities themselves), they possess the power to prevent the EPBs from acting.⁷⁷ In addition to simply refusing to act, EPBs often notify factories before inspection so that the factories may temporarily reduce emissions to meet the requirements, only to return to their normal practices after the inspection ends.⁷⁸ Fee collection, as mentioned above, is not only hard to adequately enforce, but due to reliance on fees for part of its budget, EPBs also have a conflicting interest in perpetuating the fee system so as to maintain a steady income stream.⁷⁹ Strict enforcement might negatively impact this income stream by forcing businesses to shut down or move to other jurisdictions.⁸⁰

As Economy found in her recent study of China's environmental dilemma, "...EPBs rely on [local governments] for virtually all their support, including their budgets, career advancement, number of personnel, and resources such as cars, office buildings, and employee housing. Not surprisingly, EPBs are typically quite responsive to the needs and concerns of the local government."⁸¹ Indeed, local governments also possess the power to appoint local EPB officials, and local governments may actively select business-friendly EPB officials.⁸²

⁷³ Alford & Shen, *supra* note 20, at 139.

⁷⁴ See MA & ORTOLANO, *supra* note 31, at 91-92.

⁷⁵ ECONOMY, *supra* note 12, at 92, 108.

⁷⁶ See Alford & Shen, *supra* note 20, at 140; WORLD BANK, INCOMPLETE ENFORCEMENT OF POLLUTION REGULATION: BARGAINING POWER OF CHINESE FACTORIES 5 (2002) (finding that state-owned factories have more bargaining power than privately owned ones).

⁷⁷ ECONOMY, *supra* note 12, at 108.

⁷⁸ *Id.* at 110.

⁷⁹ *Id.* at 111.

⁸⁰ *Id.*

⁸¹ *Id.* at 108.

⁸² There is considerable literature discussing the close relationships between local governments and enforcement authorities. See, e.g., Alford & Shen, *supra* note 20, at 140-44 (discussing the greater influence of sub-national governments on the career opportunities of enforcement personnel than on

Furthermore, in the still heavily state-run economy, state-owned enterprises (SOEs) that are part of the EPB's regulated community may actually be integrated into the local governmental structure in a higher administrative position than the EPBs themselves, enhancing the difficulty of ensuring compliance.⁸³ Economy also argues that:

Without a strong central apparatus to serve as advocate, monitor, and enforcer of environmental protection, other interests generally prevail. . . . Moreover, both local environmental protection officials and local judicial authorities are beholden to the local governments for their funding. . . . When market-based approaches to environmental protections, popular in Europe and the United States, are implemented in China, they often lack the necessary administrative, market, and enforcement mechanisms. China's weak legal tradition, too, enables corruption to flourish, although there are increasing opportunities for Chinese citizens to seek redress for environmental wrongdoing through the judicial system.⁸⁴

Environmental protection in China also suffers from a lack of institutional capacity and technological inadequacies that have slowed reform efforts in other fields.⁸⁵ Though continual advances have been made in this area, difficulties still burden enforcement and compliance. In the one-party-rule system that dominates the country and restricts many political freedoms, China's civil society is still underdeveloped.⁸⁶ Though grass roots movements and public interest groups exist, they have

the national level); Ferris & Zhang, *supra* note 29, at 595-96 (discussing EPB sensitivities to local government agenda vis-à-vis SEPA's potential intervention); Xuejun Wang & Edwin D. Ongley, *Transjurisdictional Water Pollution Disputes and Measures of Resolution: Examples from the Yellow River Basin*, WATER INTERNATIONAL, Sept. 2004, at 287 (discussing the power of the local government to confirm senior EPB staff) [hereinafter Wang & Ongley, *Examples from the Yellow River Basin*].

⁸³ ECONOMY, *supra* note 12, at 140.

⁸⁴ *Id.* at 91-92.

⁸⁵ See, e.g., Randall Peerenboom, *The X-Files: Past and Present Portrayals of China's Alien "Legal System,"* 2 WASH. U. GLOBAL STUD. L. REV. 37, 61-80, 82 (2003); Benjamin L. Liebman, *Innovation Through Intimidation: An Empirical Account of Defamation Litigation in China*, 47 HARV. INT'L L. J. 33, 92 (2006); Katherine Wilhem, *Rethinking Property Rights in Urban China*, 9 UCLA J. INT'L L. & FOREIGN AFF. 227, 230 (2004); See generally LUBMAN, *DOING BUSINESS IN CHINA*, *supra* note 52, at Introduction; Sylvia Ostry, *China and the WTO: The Transparency Issue*, 3 UCLA J. INT'L L. & FOREIGN AFF. 1, 9 (1998).

⁸⁶ Randall Peerenboom, *Globalization, Path Dependency and the Limits of the Law: Administrative Law Reform and Rule of Law in the People's Republic of China*, 19 BERKELEY J. INT'L L. 161, 168-69 (2001).

minimal impact compared to their counterparts in, for example, the United States.⁸⁷

Lastly, cultural views on disputes have resulted in a much less litigious society in China than that encountered in many Western countries. Many commentators have noted that Chinese cultural perceptions regard litigation as a last resort that should be avoided if at all possible.⁸⁸ Parties are encouraged to negotiate a settlement, and the administrative process is the traditional governmental venue for resolving disputes as opposed to the courts.⁸⁹ While views on litigation in China are changing, many cultural issues, such as “face” and “*guanxi*” (personal relations) continue to heavily influence dispute resolution.⁹⁰ In light of the analysis of the systemic problems mentioned above, the implications of a tendency to avoid highly contentious adjudications often means that environmental considerations are severely compromised.

All of these problems notwithstanding, it must be observed that China has made considerable progress in improving its legal system and developing an effective regime for environmental protection. Consider that before the reform period began in 1978, China possessed few mechanisms for controlling environmental pollution and the environment was hardly a consideration on any policymaker’s mind. Moreover, China had just emerged from the relatively lawless period of the Cultural Revolution (1966-76), during which many of the institutions essential to effective lawmaking had been systematically dismantled and shunned.⁹¹ The massive wave of new legislation that has engulfed the country over the last twenty-five years, and the concerted efforts to implement and enforce these new statutes and regulations indicate a dramatic shift in the nation’s views on the rule of law.⁹² This, too, is evident in the growth of the legal profession in China. From a paltry community of approximately 5500 lawyers (for a population of 1.1 billion at the time) in 1981, the community of lawyers skyrocketed to over 110,000 by 1997.⁹³

⁸⁷ See ECONOMY, *supra* note 12, at 129-75.

⁸⁸ See, e.g., John Copeland Nagle, *The Missing Chinese Environmental Law Statutory Interpretation Cases*, 5 N.Y.U. ENVTL. L. J. 517, 550 (1996).

⁸⁹ Clarke, *Dispute Resolution in China*, *supra* note 49, at 265-86.

⁹⁰ See Potter, *supra* note 52, at 473.

⁹¹ STANLEY B. LUBMAN, *BIRD IN A CAGE, LEGAL REFORM IN CHINA AFTER MAO* 100-01 (1999) [hereinafter LUBMAN, *BIRD IN A CAGE*].

⁹² Klein, *supra* note 25, at 100.

⁹³ RANDALL PEERENBOOM, *Legal Profession*, in *DOING BUSINESS IN CHINA* ch. 3, *supra* note 47, at 12.

III. MAJOR LAWS AND REGULATIONS FOR CONTROLLING TRANSBOUNDARY WATER POLLUTION

A. Overview

Among the major laws and regulations addressing water pollution, the Environmental Protection Law of the People's Republic of China (EPL),⁹⁴ promulgated for trial implementation in 1979 as the first major national environmental law, establishes a basic framework for addressing environmental degradation. The next major piece of legislation was the Water Pollution Prevention and Control Law of the People's Republic of China (WPPCL),⁹⁵ which was promulgated in 1984 and amended in 1996. The third major piece of water pollution legislation is the Water Law of the People's Republic of China (Water Law),⁹⁶ which was first issued in 1988 and recently amended in 2002. In addition, other laws exist that affect water pollution, including ministry, provincial, and other regulations concerning water pollution and water resource management.⁹⁷

B. *The Regulation of Transboundary Water Pollution*

1. Environmental Protection Law

As both one of the pioneer environmental statutes in China as well as a statute of general applicability, the EPL fails to provide much detail on the creation and implementation of a regime for controlling water pollution. Rather, the EPL creates a framework of core principles to guide environmental protection in general, and to be incorporated into any subsequent environmental protection legislation.⁹⁸

Among the EPL's most important principles is the right of individuals to report or file charges against units (referring to *danwei*, the traditional PRC term for labor organization groups) or individuals who

⁹⁴ 中华人民共和国环境保护法 [Environmental Protection Law of the People's Republic of China] (promulgated by the Standing Comm. Nat'l People's Cong., Dec. 26, 1989, effective Dec. 26, 1989) 全国人民代表大会常务委员会公报 [STANDING COMM. NAT'L PEOPLE'S CONG. GAZ.] 6 (P.R.C.), 1989 available at <http://www.mekonglawcenter.org/download/0/china.htm> (last visited Feb. 21, 2006) [hereinafter EPL].

⁹⁵ WPPCL, *supra* note 57.

⁹⁶ See Water Law, *supra* note 36.

⁹⁷ Due to the scope of this Note, only the most relevant national statutes and regulations will be addressed.

⁹⁸ Michael A. Gheleta, *Sustaining the Giant Dragon: Rational Use and Protection of China's Water Resources in the Twenty-First Century*, 9 COLO. J. INT'L ENVTL. L. & POL'Y 221, 256-61 (1998); Ferris & Zhang, *supra* note 29, at 582-84.

cause pollution or damage the environment.⁹⁹ The Act also permits provinces and other sub-national entities to establish discharge standards for pollutants for which national standards have not already been promulgated, and more stringent local standards may be promulgated for existing national standards.¹⁰⁰ Environmental protection laws must be adhered to in the construction of polluting facilities.¹⁰¹ Adequate measures for environmental protection must be adopted to accompany natural resource utilization projects.¹⁰²

The EPL also first announced the "Three Synchronizations" system.¹⁰³ The system mandates that pollution controls be designed, implemented, and operated simultaneously with the design, construction, and operation of a primary construction project.¹⁰⁴ Enterprises or institutions that cause severe environmental pollution shall be required to eliminate and control the pollution within a certain period of time.¹⁰⁵ Technologies and facilities that fail to meet the requirements of environmental protection laws are to be banned,¹⁰⁶ and likewise, facilities causing severe pollution are not be transferred to entities unable to prevent such pollution.¹⁰⁷

Importantly, the EPL does not offer a strong regime for addressing transboundary disputes. Transboundary pollution is discussed in Article 15, which provides for the prevention and control through negotiation between the affected local people's governments or by decision of the people's government at a higher level. The Act does not make any mention of a requirement that upstream jurisdictions not violate the standards of downstream jurisdictions, or even take them into consideration. Given the preference for avoiding the judicial resolution of disputes, the negotiation and mediation requirement is not surprising, but as will be discussed below, it does not translate into an effective tool for controlling transboundary water pollution.

2. Water Pollution Prevention and Control Law

The promulgation of the WPPCL was a major step forward for environmental law in China, and the revision of the Act in

⁹⁹ EPL, *supra* note 94, at art. 6.

¹⁰⁰ *Id.* at art. 10.

¹⁰¹ *Id.* at art. 13.

¹⁰² *Id.* at art. 19.

¹⁰³ *Id.* at art. 26.

¹⁰⁴ See also MA & ORTOLANO, *supra* note 31, at 24-26.

¹⁰⁵ EPL, *supra* note 94, at art. 29.

¹⁰⁶ *Id.* at art. 30.

¹⁰⁷ *Id.* at art. 34.

1996 demonstrated the extent to which the leadership recognized China's water crisis and the central government's desire to counteract the pollution problems.¹⁰⁸ That having been said, both in general and certainly with respect to transboundary issues, the WPPCL could still stand to benefit from major revision.

The WPPCL and its Implementing Regulations¹⁰⁹ are the main pieces of legislation addressing surface and ground water pollution in China.¹¹⁰ Notwithstanding its hortatory nature, the Act provides basic mechanisms for prevention. SEPA is authorized to create national water quality standards¹¹¹ and pollutant discharge standards.¹¹² A pollutant discharge registration system was also created,¹¹³ for which effluent fees are required, including fees for discharges in excess of the permitted levels.¹¹⁴ Local governments possess the discretion to develop more stringent standards through a process of first establishing protected areas for which more demanding controls may then be promulgated.¹¹⁵

The discharge of some hazardous materials is also prohibited, although "hazardous materials" are not explicitly defined in the Act.¹¹⁶ The WPPCL emulates the EPL in appearing to confer a right on individuals injured by water pollution to sue the responsible parties.¹¹⁷ In the event of emergency situations, EPBs are authorized, with the approval of the people's government, to order reduction or cessation of pollutant discharges.¹¹⁸ EPBs are also charged with on-site inspection powers.¹¹⁹

¹⁰⁸ Ongley & Wang, *supra* note 1, at 275; Gheleta, *supra* note 98, at 265.

¹⁰⁹ 中华人民共和国水污染防治法实施细则 [Implementing Regulations for the Water Pollution Prevention and Control Law of the People's Republic of China] (promulgated by the State Council, July 12, 1989, effective July 12, 1989, revised Mar. 24, 2000) 2000 中华人民共和国国务院令 [ST. COUNCIL. GAZ.] 15 (P.R.C.), available at <http://www.zhb.gov.cn/eic/649645345759821824/19991225/1023005.shtml> (last visited Feb. 22, 2006).

¹¹⁰ WPPCL, *supra* note 57, at art. 2 (including "rivers, lakes, canals, irrigation canals, reservoirs and other surface water bodies and of ground water bodies").

¹¹¹ *Id.* at art. 6. Water quality is divided into five classes, from I to V, with Class I being the highest quality and Class V the worst.

¹¹² *Id.* at art. 7.

¹¹³ *Id.* at art. 14.

¹¹⁴ *Id.* at art. 15.

¹¹⁵ *Id.* at art. 12.

¹¹⁶ *Id.* at arts. 29, 31, 34 (prohibiting the discharge of oil, acid or alkaline solutions, toxic liquid wastes, toxic soluble slag, mercury, arsenic, chromium, lead, cyanide, yellow phosphorus, and radioactive materials).

¹¹⁷ *Id.* at art. 5. In addition to conferring standing to sue, the WPPCL explicitly authorizes the bringing of suits in the people's court if a party fails to comply with an administrative decision or penalty. The administrative body (EPB) may bring suit for these enforcement actions. *See id.* at art. 54. The Act also provides for criminal sanctions. *See id.* at arts. 56-58.

¹¹⁸ *Id.* at art. 21. The Act also allows for total loading requirements if water quality standards are not met. Article 16 provides, "With regard to water bodies where the standards for water environment quality established by the State still cannot be attained although the discharge of water pollutants has conformed to the discharge standards, the people's governments at

The WPPCL does address transboundary water issues in several respects. Article 10 provides for basin-wide planning and transboundary planning in only a very general sense. SEPA is charged with developing watershed plans to control pollution in conjunction with other relevant ministries and departments, and the plans are to be submitted to the State Council for approval.¹²⁰ However, an inconsistency in the drafting of this provision also confers the power on provincial EPBs, the MWR, and provincial people's governments to develop watershed plans where transboundary water pollution occurs.¹²¹ Moreover, these transboundary plans are to be developed "in light of actual local conditions," a questionable term that would appear at best to give provinces discretion in determining which commitments is feasible for them to make.¹²² Transboundary plans are to be approved by the State Council or the provincial government.¹²³ Absent is any requirement for an integrated water plan, and at most the provision appears to embody only a consultation requirement. The drafting inconsistency should be noted as well, for all of China's major river basins cross provincial borders, and all arguably experience instances of transboundary pollution. The language of the provision does not mandate inter-provincial coordination and cooperation, and appears to allow for decision-making to rest within the administrative boundaries of each province. The fact that the State Council may approve the plan, however, does indicate that involvement by the central government could force provinces to take their neighbors into consideration.

One provision within the Act raises the possibility of a system of watershed-wide water quality standards that could potentially alleviate transboundary pollution problems. Article 17 declares that SEPA, the MWR and provincial people's governments may develop water quality standards for the entire watershed that would be binding within each province of the watershed. These standards are subject to negotiation by the parties, and provinces are not legally bound to submit to watershed-wide standards. At the time of publication, Article 17 does not appear to have been implemented.

or above the provincial level may institute a system for control of the total discharge of major pollutants, and a system for making an estimate before deciding on the quantity of major pollutants to be discharged by a enterprise that is charge with the task of reducing its discharge. Specific measures shall be formulated by the State Council." It has been argued that this system has not been effective in implementation. See Ongley & Wang, *supra* note 1, at 279.

¹¹⁹ WPPCL, *supra* note 57, at art. 25.

¹²⁰ *Id.* at art. 10.

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

The primary avenue for resolving transboundary disputes under the WPPCL is by consultation and mediation through the people's governments.¹²⁴ The language in the WPPCL replicates the language on the subject in the EPL. There are no additional provisions for judicial resolution or rights of provinces, autonomous regions or independently administered municipalities to seek legal redress for transboundary pollution, or any other requirements that upstream jurisdictions incorporate the standards of downstream neighbors.¹²⁵

3. Water Law

Amended in 2002, the Water Law is the most recent major legislation affecting transboundary water pollution in China.¹²⁶ The Act recognizes that all water resources within the country are the property of the state.¹²⁷ Under the 2002 revisions, a new fee system for water utilization was promulgated.¹²⁸ Significantly, in 2002 a new section on water resource planning was added that incorporates river basin management principles. The amendments also focused on the need for a more unified administrative approach and more centralized watershed management.¹²⁹ The Act delegates the MWR as the national body responsible for the administration and supervision of water resources throughout the country.¹³⁰ This includes transboundary water resource issues.¹³¹ However, although transboundary water pollution is implicated in numerous areas of regulation under the Water Law, the Act focuses more on water allocation, water use, and flood prevention. The Water Law states that the WPPCL should be followed on matters concerning water pollution.¹³² Notwithstanding this, the Act contains several important provisions affecting transboundary water issues.

Watershed management is dealt with in the Water Law in a different tone from the WPPCL. Article 14 provides that planning shall

¹²⁴ *Id.* at art. 26.

¹²⁵ Interestingly, Article 37 provides that downstream irrigation system standards must be respected where industrial waste water or municipal sewage is discharged into upstream irrigation canals. However, this requirement is extremely localized in its scope, and could provide little basis for application to the transboundary context.

¹²⁶ See generally Wouters et al., *supra* note 3, for a general history of the Water Law.

¹²⁷ Water Law, *supra* note 36, at art. 3. State ownership was also established in the Constitution, which provides in Article 9 that the state owns all water resources in the country.

¹²⁸ *Id.* at art. 7.

¹²⁹ *Id.* at chap. 2.

¹³⁰ *Id.* at art. 12.

¹³¹ *Id.* at arts. 12, 17, 32; See also Ministry of Water Resources, *Main Responsibilities*, at <http://www.mwr.gov.cn/english1/about.asp>.

¹³² Water Law, *supra* note 36, at art. 81.

be divided into watershed planning and regional planning.¹³³ Watershed planning and regional planning are then further divided into comprehensive planning and specific planning.¹³⁴ Comprehensive planning generally refers to the exploitation, conservation and protection of water resources and disaster prevention, whereas special planning involves flood prevention, shipping, hydropower, and other areas.¹³⁵

Comprehensive plans shall be harmonized with national plans, including economic, social, land use and urban planning, and environmental protection.¹³⁶ The Water Law delegates the authority to develop the comprehensive plans to the MWR in conjunction with other ministries, provincial governments, autonomous regions, and municipalities, which are to be submitted to the State Council for approval.¹³⁷ Thus, it does not appear clear from the Act what role other ministries will play in developing the comprehensive plans. While it would be logical to assume that SEPA will be involved in the development of the pollution control part of the comprehensive plan, it is not clear whether SEPA has the ultimate say in this regard, notwithstanding its participatory role delineated in the Act.¹³⁸ It has been suggested that this has already created bureaucratic tension and has been detrimental to the intention of the Act to achieve harmonization of different policy concerns.¹³⁹

Moreover, the Water Law is silent on the issue of preventing transboundary pollution in watershed management. At most, the Act contains vague requirements of review and consideration of transboundary watershed plans, but without any specific provisions on pollution abatement or the rights of downstream jurisdictions. For example, Article 32 provides that plans for the division of "functions" in transboundary rivers and lakes must be developed by the relevant MWR bureaus and other governmental bodies and reviewed by the provincial governments. There is no mention of any transboundary pollution requirements other than the weak provisions discussed above.¹⁴⁰ Likewise, water resource use that involves transboundary water sources must conform to the water allocation plan for the entire watershed.¹⁴¹ The

¹³³ *Id.* at art. 14.

¹³⁴ *Id.* at arts. 14-15.

¹³⁵ *Id.* at art. 14.

¹³⁶ *Id.* at art. 15.

¹³⁷ *Id.* at arts. 16-17.

¹³⁸ *Id.* at art. 32 (addressing the role of EPBs in planning water function zones in transboundary watersheds; function zones are segments of the river utilized primarily by one kind of activity, such as agriculture, industry, etc.).

¹³⁹ See Ongley & Wang, *supra* note 1, at 278.

¹⁴⁰ See *supra* text accompanying note 138.

¹⁴¹ Water Law, *supra* note 36, at art. 45.

water allocation plan does not, however, include any strong provisions mandating the incorporation of transboundary pollution prevention plans or standards. To the extent that transboundary interests are explicitly recognized, they are often done outside of the context of pollution. For example, Article 20 states that in flood prevention management, “[t]he development and utilization of water resources shall . . . take into consideration the interests of upstream and downstream areas.” Similar provisions do not exist for pollution control. The water allocation rules are not completely silent on the matter of the environment. Article 22 has a weak requirement that the allocation of water from one watershed to another be done in a manner not harmful to the environment.

Dispute resolution in the Water Law, added in the 2002 revisions, is provided for in considerable detail. The Act provides that transboundary water disputes should be resolved through negotiation amongst the jurisdictions, failing which the people’s government at the next higher level should be called in for a binding adjudication.¹⁴² As these disputes are addressed in the administrative process, given the closed nature of the Chinese government, there is little information available on disputes that have utilized this mechanism. Moreover, as the focus of the Water Law is primarily on allocation and flood prevention, it is doubtful that this will develop into a successful vehicle for addressing transboundary pollution problems.

The majority of legal penalties for violations of the Water Law address abuse of the allocation system and violation of the flood prevention provisions. However, in the case of transboundary disputes, administrative sanctions apply for the following situations:

- Refusal to implement allocation plans;
- Refusal to follow the overall water quantity requirements;
- Refusal to follow the higher level government’s order in a transboundary dispute;
- Acting to change the water conditions in dispute, including in contravention of the law, before the settlement of a transboundary water dispute has been reached, and without the agreement of the parties or the higher level government.¹⁴³

As the discussion in the preceding paragraphs makes clear, the effects of transboundary pollution do not factor into the decision-making calculus,

¹⁴² *Id.* at art. 56.

¹⁴³ *Id.* at art. 75.

and therefore these legal remedies do not provide for the kinds of redress needed for pollution that crosses jurisdictions.

C. *The Failure of the Legal Regime to Effectively Control Transboundary Water Pollution*

As the preceding brief review of the fundamental environmental laws addressing transboundary water issues and water pollution control makes apparent, much of the statutory language is hortatory, weak, and has failed to translate into hard legal requirements. The reality on the ground is by no means more promising. Transboundary water pollution is largely overlooked in the statutory framework, and to the extent that it has been addressed, it has been done in only the most perfunctory of manners.¹⁴⁴ The explanation for the failure to adequately address transboundary water pollution lies not only in the weak and malleable legal structure, but also in a variety of administrative and practical dilemmas that reflect endemic problems in environmental enforcement activities across China.¹⁴⁵

Perhaps the most salient problem is the confluence of the strength of provincial and local governments to thwart the central government's environmental agenda through the local control of enforcement organizations with the fact that overall water quality and resource management is in the domain of the provinces.¹⁴⁶ These two phenomena are integral to the majority of the difficulties for those attempting to control transboundary water pollution. Lack of compliance and lax enforcement, corruption, pliant local authorities and courts, and few incentives to break with the past all flow from the devolution of central government power over the environment to the provinces.

1. SEPA's Lack of Enforcement Capacity

As noted earlier, SEPA acts as the national policymaker and does not possess enforcement powers. In China's decentralized system, the provinces and other sub-national entities control the enforcement of environmental regulations that will affect industry and economic life in their own jurisdictions.¹⁴⁷ Without any accountability to a higher body, in

¹⁴⁴ Ongley & Wang, *supra* note 1, at 275.

¹⁴⁵ Liebman, *supra* note 1, at 298 (arguing that transboundary pollution has emerged as a significant dilemma across much of China, and reflects the tensions between the decentralized system of government and the need for national solutions to transboundary pollution problems).

¹⁴⁶ MA & ORTOLANO, *supra* note 31, at 60-64; Ongley & Wang, *supra* note 1, at 273.

¹⁴⁷ MA & ORTOLANO, *supra* note 31, at 55, 60-64; Liebman, *supra* note 1, at 297-99.

China's development-oriented mindset environmental protection invariably takes the back seat to the economy except in the most egregious of cases.¹⁴⁸ The result is that SEPA is powerless to force the provinces to implement and follow the environmental laws it has developed.¹⁴⁹

In the context of water quality management, SEPA must develop water quality targets for each watershed, which are then sent to the provincial EPBs for implementation.¹⁵⁰ Not only are these standards not developed as part of an integrated water resource management plan in conjunction with the MWR, but they also fall prey to the same EPB institutional biases that frustrate other enforcement activities.¹⁵¹

Without a national body to oversee the enforcement of environmental laws, a downstream state is immediately susceptible to pollution from an upstream state that would otherwise be abated if environmental laws were enforced. As perhaps the history of the Clean Water Act in the United States may suggest, the severity and volume of transboundary water pollution could be diminished simply by the effective enforcement of a pollution control regime whose primary focus is on polluters within only one jurisdiction.¹⁵² While a loophole in the law allowing for greater leeway for transboundary pollution may lead to industry congregating on administrative borders, certainly a strong regime for controlling water pollution from point-sources alone would vastly reduce the amount of pollutant discharge that crosses from one Chinese jurisdiction to another. Without a functioning system for enforcing even the most basic provisions of the WPPCL, China will be hard pressed to overcome water pollution on the transboundary level.

Were SEPA to be granted a strong role in enforcement, the benefits to resolving transboundary water pollution could be two-fold. First, should instances of transboundary water pollution evolve into disputes that are taken by provinces to national ministries such as SEPA, the ministry will be much more influential in brokering a settlement because it can hold the threat of enforcement over the parties at all times. Local and regional efforts to thwart national resolution of disputes that the provinces may view negatively will be much less successful if SEPA has the power to see that the settlement is carried out on the ground. Secondly, possessing the power to carry out enforcement at the provincial

¹⁴⁸ See *infra* Part IV.1 (discussing the case of the Huai River).

¹⁴⁹ ECONOMY, *supra* note 12, at 199-200; Alford & Shen, *supra* note 20, at 142-43.

¹⁵⁰ WPPCL, *supra* note 57, at art. 17.

¹⁵¹ See Ongley & Wang, *supra* note 1, at 275.

¹⁵² See ROBERT V. PERCIVAL, ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY, 576-85 (2003).

and local levels, SEPA can act to close the loophole currently allowing for the proliferation of transboundary pollution because it can issue fees and enjoin pollution activities on provincial borders that affect downstream areas. This preventative approach could have the effect of nipping transboundary pollution activities in the bud. Moreover, as a truly national regulatory body, SEPA can afford to view pollution problems from a much broader perspective than local and provincial EPBs with their local affiliations and allegiances.

2. Power of Local Government over EPBs and Enforcement Activities

Flowing from SEPA's inability to mandate enforcement is the power of the provinces and local governments over the EPBs to which the enforcement powers have been delegated. As was noted in an earlier section, the ability of EPBs to crack down on polluters is hamstrung by their subservient relationship to the local governments.¹⁵³ This power structure is embodied in multiple ways. First, local governments usually appoint the EPB staff.¹⁵⁴ Local authorities concerned about environmental enforcement stymieing investment opportunities will naturally lean towards more like-minded personnel. Second, although partially funded through the fee system, EPBs also greatly rely on local governments for their budget.¹⁵⁵ And, as polluters are a source of revenue, EPBs will be more prone to enter into working relationships with local businesses that will continue to guarantee a source of funding for them without unduly hurting business. Even with the application of external pressure from other government actors such as SEPA, enterprises will often only improve their pollution prevention facilities during inspection periods, and return to prior practices as soon as the limelight has shifted.¹⁵⁶ With SEPA mollified that the enterprises are within the letter of the law and without any means to continuously monitor compliance, the local authorities gain the upper hand.

Although the WPPCL creates a regime that, albeit not the strictest possible, should ostensibly be a step forward in pollution provision, the delegation of the enforcement powers to local authorities means that the regime cannot function well within China's current political and administrative climate. Not only are regions in competition with each other, but the provinces are locked in a struggle with the central

¹⁵³ See *id.* at 277.

¹⁵⁴ See Wang & Ongley, *Examples from the Yellow River Basin*, *supra* note 82, at 287.

¹⁵⁵ ECONOMY, *supra* note 12, at 108.

¹⁵⁶ *Id.* at 110.

government to promote their own agendas.¹⁵⁷ The flexibility that has benefited China's economic transformation so tremendously over the last twenty-five years is a block to environmental protection. Without the power to set and achieve national policy, the central government cannot hold the provinces accountable for pollution that crosses from one jurisdiction to another.

3. Failure to Create Accountability

A logical result of the powerlessness of SEPA vis-à-vis the overwhelming independence of the provinces is a lack of accountability that pervades environmental law in China. SEPA cannot be held accountable for the failure to effectively implement environmental laws not only because it lacks enforcement responsibilities, but also with only 300 people on staff, it cannot possibly undertake any additional tasks.¹⁵⁸

The weak statutory structure and shoddy drafting contribute to the failure to create accountability. The WPPCL does not provide any language for determining when transboundary pollution has occurred. To the extent that transboundary pollution is identified, adequate mechanisms do not exist for dealing with disputes. Without incentives to improve pollution control in their administrative jurisdiction, local authorities will more likely bend to the local political and economic interests—interests to which they are held accountable.

Ongley and Wang argue that one of the principal reasons for transboundary water pollution in China is that each province is responsible for its own water quality and quantity management.¹⁵⁹ Notwithstanding commitments to watershed management, there are no mechanisms for forcing provinces to incorporate the needs or circumstances of their downstream neighbors into their management plans.¹⁶⁰ There is some evidence that higher level bodies can exert effective influence on lower level authorities.¹⁶¹ However, without an effective national body to supervise transboundary pollution and without a means for provinces to effectively complain of violations, pollution is more likely to continue to flow unabated.

¹⁵⁷ LUBMAN, *BIRD IN A CAGE*, *supra* note 91, at 144.

¹⁵⁸ Nagle, *supra* note 88, at 536-46; ECONOMY, *supra* note 12, at 106-08; Ongley & Wang, *supra* note 1, at 276-77; Wang & Ongley, *Examples from the Yellow River Basin*, *supra* note 82, at 287-88.

¹⁵⁹ Ongley & Wang, *supra* note 1, at 276.

¹⁶⁰ Wouters et al., *supra* note 3, at 277-89; Wang & Ongley, *Examples from the Yellow River Basin*, *supra* note 82, at 287-88.

¹⁶¹ See WORLD BANK, *THE DETERMINANTS OF GOVERNMENT ENVIRONMENTAL PERFORMANCE: AN EMPIRICAL ANALYSIS OF CHINESE TOWNSHIPS* 4, 16 (2002).

4. Lack of Coordination

Contributing to the lack of accountability is the widespread failure of agencies to coordinate their often overlapping responsibilities. For example, the WPPCL and the Water Law do not create a requirement to share data across agencies. Furthermore, although local and provincial EPBs and WRBs are accountable to the same government within their jurisdiction, there is very little coordination between the two entities.¹⁶² To the extent that there is synchronization arising from their intertwined activities, such a relationship ends at the jurisdiction's boundary lines.¹⁶³

5. Ineffective Management Responsibilities and Policy Direction

Much of the foregoing analysis highlights significant management and organization problems at the core of the administrative, institutional and legal debacle frustrating approaches to resolving transboundary issues. Some of the confusion arises from bureaucratic politics. As Alford and Shen stated:

National agencies vie with one another to develop new laws that, in addition to their stated goals, will distinguish their proponents from their command economy predecessors and justify their continued call on state resources. One result is a proliferation of sometimes overlapping or contradictory laws and regulations administered by agencies with varying commitments to and experiences with formal legal processes. This complicates law enforcement, particularly in the environmental area, which is often viewed as being in tension with economic development.”¹⁶⁴

Numerous management problems arise in the transboundary context. First, some watersheds have Leading Groups, committees of senior ministry and provincial officials charged with assisting in the coordination of pollution issues. The impact of the Leading Groups will

¹⁶² See Ongley & Wang, *supra* note 1, at 273.

¹⁶³ Alford & Shen, *supra* note 20, at 139; Ongley & Wang, *supra* note 1, at 273; Wang & Ongley, *Examples from the Yellow River Basin*, *supra* note 82, at 287-88.

¹⁶⁴ Alford & Shen, *supra* note 20, at 138.

be discussed primarily through the vehicle of the Huai River case study.¹⁶⁵ However, several preliminary observations can be made. Although consisting of both upstream and downstream government officials, the Leading Groups have largely failed to curb transboundary pollution for mostly the same reasons that have frustrated transboundary water pollution issues in general.¹⁶⁶ This includes the provinces' lack of accountability to downstream states, SEPA and other national bodies, and a failure to properly integrate pollution control planning at the watershed level.¹⁶⁷

The coordinated management of watershed water quality between SEPA and the WRBs envisioned in the Water Law¹⁶⁸ has largely failed in practice.¹⁶⁹ This may be due to institutional tensions and bureaucratic turf wars, but, regardless, the result has been that SEPA has had minimal involvement with WRBs in watershed management.¹⁷⁰ Part of the reason for the disconnect can also be traced to the WPPCL and the Water Law, which provide little in the way of an integrated approach to watershed planning and management. For example, the WPPCL does not cross-reference the Water Law at all. Also, the term "water resources" is inadequately dealt with in the statutes, leading to different interpretations of their meaning in the MWR and SEPA,¹⁷¹ and contributing to regulatory confusion and overlap. Moreover, the provisions in the respective laws not only fail to refer to each other, but also use different terminology.¹⁷² SEPA's role in the comprehensive plan is left uncertain, and though SEPA should arguably work with MWR on the pollution aspects of the plan, reports indicate that the two ministries do not coordinate on this and SEPA reports directly to the State Council instead.¹⁷³

The WPPCL also does not adequately provide for data and information gathering, although SEPA has attempted to deal with this problem through regulations it issued several years ago requiring, among other things, that environmental quality status information be made

¹⁶⁵ See *infra* Part IV.1.

¹⁶⁶ Ongley & Wang, *supra* note 1, at 274-75.

¹⁶⁷ *Id.* at 275. See *infra* Part IV.1.

¹⁶⁸ Water Law, *supra* note 36, at arts. 16-17.

¹⁶⁹ Ongley & Wang, *supra* note 1, at 275.

¹⁷⁰ See *id.*

¹⁷¹ See *id.* at 276 (describing how MWR interprets "water resources" to include water pollution whereas SEPA takes it to mean only water quantity management).

¹⁷² The WPPCL uses the term "unified" (*tongyi*) for planning whereas the Water Law employs the term "comprehensive" (*zonghe*). See WPPCL, *supra* note 57, at art. 10; Water Law, *supra* note 36, at art. 14.

¹⁷³ Ongley & Wang, *supra* note 1, at 278.

publicly available.¹⁷⁴ Still, gaps persist. Under the WPPCL, for example, WRBs are required to carry out monitoring on provincial borders and report the data to SEPA.¹⁷⁵ Research has indicated that SEPA does not rely on this data to address transboundary pollution.¹⁷⁶ Even if it were to utilize this data, it is doubtful given SEPA's lack of enforcement capabilities that this would be translated into action. Statutory inconsistencies in the roles of MWR and SEPA have also resulted in both ministries undertaking their own monitoring, and transboundary disputes are often dragged out by demands by each group that it conduct its own data gathering first.¹⁷⁷

Additionally, the total load control approach has fallen victim to poor management in terms of its application to transboundary pollution. The main problem is that it has not been applied to entire watersheds, but rather only jurisdiction by jurisdiction.¹⁷⁸

6. Dispute Resolution

Within China's decentralized system, the dispute resolution procedures of negotiation and mediation that are available to provinces are inadequate to the task of successfully resolving transboundary water pollution disputes. A hypothetical transboundary dispute brought under Article 56 of the Water Law serves to illustrate the difficulties. A higher level government body sought to mediate between two disputing provinces may be able to exert a certain amount of pressure on the parties to create a resolution. However, the range of factors that weigh heavily on all levels of government would point to a weak, ineffective outcome rather than a strong, binding settlement.

First, political pressures arising out of economic interests could act to quell an inter-provincial dispute even before it arises. In China's quasi-state-owned economy, SOEs have consistently performed as some of the worst polluters.¹⁷⁹ However, they also play a vital role in providing

¹⁷⁴ See 关于发布《环境保护行政主管部门政务公开管理办法》的通知 [Circular on Management Methods on Administrative Transparency in Environmental Protection Authorities] (promulgated on Feb. 19, 2003, effective Apr. 1, 2003) 2003 国家环境保护总局文件环发[Nat'l General Bureau of Environmental Protection Documents] 24 (P.R.C.), available at <http://www.zhb.gov.cn/eic/649086798147878912/20030219/1036860.shtml> (last visited Feb. 22, 2006); see also Ferris & Zhang, *supra* note 29, at 597-98.

¹⁷⁵ WPPCL, *supra* note 57, at art. 18.

¹⁷⁶ See Ongley & Wang, *supra* note 1, at 279.

¹⁷⁷ See *id.* at 277.

¹⁷⁸ See *id.* at 279.

¹⁷⁹ WORLD BANK, INDUSTRIAL OWNERSHIP AND ENVIRONMENTAL PERFORMANCE: EVIDENCE FROM CHINA 16, 19-20 (2002); ECONOMY, *supra* note 12, at 118; MA & ORTOLANO, *supra* note 31, at 3, 144-49.

jobs for a large number of Chinese as well as providing health care, education, housing, and retirement benefits for many (although the government is slowly retreating from this “iron rice bowl” approach).¹⁸⁰ In fact, because they are often poorly run, many of these SOEs provide only minimally more input into the economy than as employers and social welfare providers.¹⁸¹ As such, the authorities in regions where SOEs are located are reluctant to crack down on SOE polluters when shutting them down or forcing pollution reduction might cause widespread social unrest.¹⁸²

The same scenario applies in the growing private economy that has fueled much of China’s tremendous growth. Private companies are often the star performers, and governments will think seriously before implementing any policy that could jeopardize foreign investment dollars.¹⁸³ Although this phenomenon does not equate to the classical “race to the bottom,” it does bespeak an innate tendency to avoid or prevent any action that will hurt the local economy or diminish the prospects for the approval of new investment projects.

These economic concerns percolate up the government totem pole to affect higher-level government decision-making as well. Just as the careers of many local authorities stand to benefit from continued economic growth within their jurisdiction, so too do the careers of provincial and higher level government employees. Any local setbacks that negatively impact provincial growth or stability will reflect poorly on the provincial leaders or those above them.¹⁸⁴

Consensus-oriented cultural values and the political system promote playing down problems and avoiding controversy.¹⁸⁵ This preference is evident by the fact that negotiation and conciliation are expressly provided as a means for addressing transboundary water disputes in the Water Law.¹⁸⁶ While they are an important first step in addressing transboundary pollution problems, negotiation and

¹⁸⁰ LUBMAN, BIRD IN A CAGE, *supra* note 91, at 107-08; Hayden Windrow & Anik Guha, *The Hukou System, Migrant Workers and State Power in the People’s Republic of China*, 3 NW. U. J. INT’L HUM. RTS. 3, 46-47 (2005).

¹⁸¹ Darryll K. Jones, *The Neglected Role of International Altruistic Investment in the Chinese Transition Economy*, 36 GEO. WASH. INT’L L. REV. 71, 104 (2004).

¹⁸² Benjamin J. Richardson, *Is East Asia Industrializing Too Quickly? Environmental Regulation in its Special Economic Zones*, 22 UCLA PAC. BASIN. L. J. 150, 227-28 (2004); ECONOMY, *supra* note 12, at 63.

¹⁸³ See generally NICOLAS R. LARDY, CHINA’S UNFINISHED ECONOMIC REVOLUTION (1998).

¹⁸⁴ Li Zhiping, *The Challenges of China’s Discharge Permit System and Effective Solutions*, 24 TEMP. J. SCI. TECH. & ENVTL. L. 375, 380-81 (2005); LUBMAN, BIRD IN A CAGE, *supra* note 91, at 268, 302; ECONOMY, *supra* note 12, at 108-12.

¹⁸⁵ See generally Zhao Yuhong, *Environmental Dispute Resolution in China*, 16 J. ENVTL. L. 157 (2004); see also MA & ORTOLANO, *supra* note 31, at 89-90.

¹⁸⁶ Water Law, *supra* note 36, at art. 56.

conciliation cannot provide adequate solutions given China's systemic problems with the decentralization of power and enforcement authority. As a forum for dispute resolution, negotiation too easily falls prey to institutional political pressures of the sort that need an overarching decision-maker to impose a binding decision. Absent that, local political pressures and the inequality of bargaining power between the parties will dominate the negotiation and conciliation process.

Arguably, the embarrassment accompanying the open recognition of a dispute that will disrupt the local political balance of power results in efforts to avoid any such problems from coming to light. To avoid such embarrassment, authorities at all levels downplay pollution problems by rigging on-site inspections, not enforcing pollutant discharge requirements, and directing jurisdictions below them to disregard transboundary pollution so as not to bring national attention to their region.¹⁸⁷

EPB officials and government authorities who do not rigorously enforce the laws in their own jurisdiction may be loathe to point the finger at their neighbors because of the national attention that it will bring to the region and to their own practices. One side effect of the vagueness and instability of the legal structure, which is also a historical idiosyncrasy of the Chinese political system, is the fear of central government intervention.¹⁸⁸ Contrary to many of the popular views of the PRC government in the West, China is not run under a strict, unified system. Rather, the central government is in a constant struggle with the provinces to ensure that its policies and directives will be enforced. The provinces, on the other hand, seek to advance their own agendas, many of which may run directly counter to the central government.¹⁸⁹ Often, the central government cannot harness sufficient resources to enforce compliance, and in many sectors the reality in the provinces differs significantly from the national law.¹⁹⁰ From the provincial perspective, central government intervention could spell an end to many practices that benefit the province. A controversial dispute between two provinces is exactly the kind of circumstance that would merit central government involvement, and thus is one to be avoided at all costs.

This proposition is supported by two reasons cited by Ferris and Zhang in their discussion of local sensitivity to SEPA intervention. Since EPB staff members are appointed by provincial and local governments,

¹⁸⁷ ECONOMY, *supra* note 12, at 110.

¹⁸⁸ See Ferris & Zhang, *supra* note 29, at 595-96 for discussion in the environmental context.

¹⁸⁹ Liebman, *supra* note 1, at 298-300; ECONOMY, *supra* note 12, at 117-21; LUBMAN, BIRD IN A CAGE, *supra* note 91, at 104-06.

¹⁹⁰ Minxin Pei, *China's Governance Crisis*, FOREIGN AFFAIRS, Sept.-Oct. 2002, at 96.

they will most likely suffer if projects supported by the local government are rejected by SEPA on environmental grounds.¹⁹¹ Secondly, SEPA intervention will be perceived as a failure on the part of the local staff and the government.¹⁹² EPBs and provincial and lower governments will therefore endeavor to deal with a problem in such a manner where order can be reached without attracting the attention of the national authorities. One might assume that due to the fierce competition between provinces for investment, a downstream province would be pleased to see the competitiveness of its upstream polluting neighbor reduced through a central government crackdown on transboundary polluting enterprises. However, fears that central government intervention would also shed light on illegal or unapproved practices in the downstream province could counteract the impulse to raise a complaint. Moreover, poor monitoring by the EPBs may reduce the knowledge of external pollutants flowing into the jurisdiction. With the disincentives for EPBs to gather sufficient data, they are unlikely to know much about pollution originating elsewhere.

Finally, a fundamental problem in the existing system for dispute resolution is that it is played out mainly within the secretive confines of the administrative process. To the extent that upstream and downstream jurisdictions engage each other to address transboundary water pollution problems, the entire process takes place within government channels and outside of the view of society. The existing framework primarily contemplates dispute resolution within the administrative process, thus preventing some of the most important stakeholders from participating.¹⁹³ Moreover, under the current legal system, there appears to be no other avenue for addressing inter-provincial disputes because provinces are not allowed to sue each other under Chinese law.¹⁹⁴ Thus, by cloaking the resolution of disputes in the secrecy surrounding the administrative process, transboundary disputes become susceptible to the entire range of problems illustrated above. Competing government entities can wield their power unchecked in a manner perhaps less possible than if they were they held more accountable to the public through a more transparent process. By incorporating dispute resolution into the administrative process rather than in the relatively more open legal process, it makes it harder for external pressures to work an effect, like that found in the

¹⁹¹ Ferris & Zhang, *supra* note 29, at 595-96.

¹⁹² *Id.* at 595.

¹⁹³ Ongley & Wang, *supra* note 1, at 278; see Water Law, *supra* note 36, at art. 56.

¹⁹⁴ Disputes between provinces are carried out within the administrative process through the State Council or the next highest level of government. Ongley & Wang, *supra* note 1, at 278; Water Law, *supra* note 36, at art. 56.

United States where numerous stakeholders become a part of the litigation process.¹⁹⁵

IV. CASE STUDIES

Given the secrecy and lack of transparency surrounding the administrative process within which most of China's transboundary water pollution disputes are played out, there is not an abundance of case law available for analysis. However, the catastrophic water pollution along the Huai River attracted considerable attention and the ensuing government reaction provides a good window into how transboundary pollution issues are handled in practice. Additionally, at least one reported case of water pollution occurring across borders exists, and adds a perspective on how successful private parties have been in transboundary water pollution abatement.

A. *The Huai River*

The Huai River is one of the most extreme cases of water pollution in modern Chinese history.¹⁹⁶ Situated in eastern China, the Huai River basin spans four provinces: Henan (where the Huai River originates), Anhui, Jiangsu, and Shandong. The river flows in an easterly course for approximately 600 miles, with 120 tributaries, until it empties into the Yangtze River in Jiangsu. The basin is also composed of the Yishusi River system, which originates in Shandong and flows south into Jiangsu until it empties into the Yellow Sea.¹⁹⁷ The Grand Canal also connects the two river systems in addition to the Yangtze and Yellow Rivers.¹⁹⁸ The population within the watershed is approximately 150 million, and it is comparable in geographic size to England.¹⁹⁹

There is considerable industry along the Huai River and its tributaries, mostly small rural and township enterprises and in particular pulp and paper mills, tanneries, dye works, and chemical plants.²⁰⁰ The concentration of these companies is particularly heavy along the Ying

¹⁹⁵ See also Ongley & Wang, *supra* note 1, at 278.

¹⁹⁶ The Huai River has a long history of transboundary pollution problems. Economy reports that "[b]y 1993, the director of the Bureau of Water Resources Protection was complaining to no avail about the rising number of inter-provincial disputes over the Huai and the lack of any authority capable of resolving them." ECONOMY, *supra* note 12, at 3.

¹⁹⁷ WORLD BANK, HUAI RIVER POLLUTION CONTROL PROJECT ENVIRONMENTAL ASSESSMENT S-1 (2001) [hereinafter WORLD BANK, ENVIRONMENTAL ASSESSMENT].

¹⁹⁸ *Id.* at 1. See also attached map.

¹⁹⁹ WORLD BANK, CHINA: HUAI RIVER BASIN POLLUTION CONTROL PROJECT 1 (1997).

²⁰⁰ ECONOMY, *supra* note 12, at 5.

River, a tributary of the Huai in Henan and Shandong.²⁰¹ Many of the factories discharged their untreated wastes directly into the river, including ammonia and nitrogen compounds, potassium permanganate, and phenols, among other chemicals.²⁰² Due to water shortages and irrigation needs, many sections of Chinese rivers are blocked by dams and sluice gates that are only opened during the rainy season. The intense discharges of pollutants are usually trapped in the blocked sections of water during the dry season, thereby increasing the concentration of contaminants to a lethal toxicity. However, in July 1994 an inordinately heavy rainstorm in an upstream area caused the water level in many of the reservoirs to rise to a dangerous level, and officials opened the gates in order to reduce the danger of flooding. The result was a toxic wave that surged into the downstream reaches of the river, and into neighboring provinces. The water along significant portions of the river turned black, water plants were ordered to cease supplying water for fifty-four days, power stations malfunctioned (creating a major power shortage), agricultural areas were severely damaged, fishery resources were destroyed (including estimates of twenty-six million pounds of fish that were killed), and thousands of people fell ill to dysentery, diarrhea, and gastrointestinal infections.²⁰³ The direct economic damages have been estimated to be over ¥1 billion (approximately US\$120 million),²⁰⁴ although these seem low given the impact.

Due to the severity of the incident and the social unrest it was causing, the central government acted quickly and was forced to follow up with an ongoing program to reduce pollution along the Huai.²⁰⁵ The central government's main vehicle for dealing with the disaster on the Huai was the Provisional Measures for Water Pollution Prevention and Control in the Huai River Basin (Huai River Measures),²⁰⁶ promulgated by the State Council in 1995.

The Huai River Measures require that industrial pollution discharges in the watershed meet discharge standards by 1997, and that

²⁰¹ WORLD BANK, ENVIRONMENTAL ASSESSMENT, *supra* note 197, at 1.

²⁰² ECONOMY, *supra* note 12, at 5.

²⁰³ *Id.* at 1-9; WORLD BANK, ENVIRONMENTAL ASSESSMENT, *supra* note 197, at 1.

²⁰⁴ ECONOMY, *supra* note 12, at 5; WORLD BANK, ENVIRONMENTAL ASSESSMENT, *supra* note 197, at 1-2; Canfa Wang & Edwin D. Ongley, *Transjurisdictional Water Pollution Management: The Huai River Example*, WATER INTERNATIONAL, Sept. 2004, at 291 [hereinafter Wang & Ongley, *The Huai River Example*].

²⁰⁵ Wang & Ongley, *The Huai River Example*, *supra* note 204, at 291; ECONOMY, *supra* note 12, at 3-5.

²⁰⁶ 淮河流域水污染防治暂行条例 [Provisional Measures for Water Pollution Prevention and Control in the Huai River Basin] (promulgated by the State Council, Aug. 8, 1995, effective Aug. 8, 1995) 中华人民共和国国务院令 [ST. COUNCIL GAZ.] 183 (P.R.C.) [hereinafter Huai River Measures].

by 2000 the water quality in the major sections of the basin meet the water pollution prevention and control standards in the watershed plans.²⁰⁷ The Leading Group for the Huai River watershed is charged with coordinating water resource management and pollution control within the watershed, including dealing with any significant problems that may develop.²⁰⁸ The Huai River Measures also reaffirm the power of provincial governments in controlling pollution prevention by stating that the four provincial governments in the watershed have responsibility for water pollution control in their respective jurisdictions.²⁰⁹ The provisions do not provide explicit responsibility for transboundary pollution.

The Huai River Measures also created a total load discharge system in the watershed.²¹⁰ Following on this, SEPA must establish water quality standards for the entire watershed,²¹¹ which the MWR is responsible for inspecting on a transboundary level.²¹² This responsibility was also incorporated into the 2002 revisions to the Water Law.²¹³

Strict time limits for reducing pollutant discharges were also established. These required major polluters to eliminate discharges in excess of the limits by January 1, 1998.²¹⁴ Moreover, certain types of industrial activity were banned outright. New paper pulp plants as well as small-scale tanneries, chemical plants, printing and dyeing facilities, electroplating and brewing facilities are prohibited from establishing themselves along the water ways in the watershed.²¹⁵ The Huai River Measures give local governments the power to shut down polluting facilities that fail to meet this deadline and impose fines or even criminal penalties.²¹⁶ Administrative and criminal sanctions are authorized for government authorities that approve a project that will contribute pollutants in excess of the total load limits.²¹⁷ Sewage treatment is also addressed. Centralized sewage treatment facilities that are in accordance with the watershed's pollution control plans must be built by local governments.²¹⁸

²⁰⁷ *Id.* at art. 3.

²⁰⁸ *Id.* at art. 4.

²⁰⁹ *Id.* at art. 5.

²¹⁰ *Id.* at art. 9.

²¹¹ *Id.* at arts. 10, 15.

²¹² Huai River Measures, *supra* note 206, at art. 16 (the Ministry of Water Resources must inspect the water quality at each province's borders).

²¹³ Water Law, *supra* note 36, at arts. 16-17.

²¹⁴ Huai River Measures, *supra* note 206, at art. 18.

²¹⁵ *Id.* at art. 22.

²¹⁶ *Id.* at arts. 30-32, 37, 39.

²¹⁷ *Id.* at art. 34.

²¹⁸ *Id.* at art. 24.

An important recognition of transboundary pollution arises in the departure from the traditional management of sluices, which are normally operated by the MWR without regard to pollution levels. In the Huai River watershed, they must take into consideration both upstream and downstream water quality conditions in their operation.²¹⁹

Dispute settlement is provided for through the establishment of a system of reporting and resolving transboundary water pollution disputes. Accidents must be reported immediately to the local EPB, which must report them to the local government, the superior EPB office, and the Leading Group as well as neighboring jurisdictions within twenty-four hours.²²⁰ Emergency measures to control the pollution shall also be adopted.²²¹ The Leading Group is given the authority to inspect and develop plans for settling transboundary disputes.²²²

The Huai River Measures are an impressive attempt to try and address the disaster that struck the region. It could also be argued that the experience with the Huai was perhaps part of the impetus for amending the WPPCL in 1996, as some of the provisions adopted in the Huai River Measures were carried over into the 1996 amendments. However, despite some advances, in large part the regulation has been unsuccessful at removing the underlying causes of the Huai River catastrophe.

The failures, as well as the successes, are revealed in the numbers. By June 30, 1996, the government had shut down 4987 small companies in the pollution-intensive industries that contributed heavily to the 1994 catastrophe.²²³ However, it is uncertain how effective these closures have actually been. According to reports by the US embassy, within two years, forty percent of the closed factories had reopened.²²⁴ Approximately 1500 companies with waste discharges in excess of the requirements were reported to have met the required standards by the end of 1997.²²⁵ Improvements in municipal sewage treatment were also made, with ten treatment plants having been constructed and thirty-two more under construction by the end of 2000.²²⁶ However, this was far behind schedule, as by 2000 all fifty-two municipal sewage treatment plants were supposed to be operational.

Although SEPA reported that there were improvements in water quality, it is hard to see based on the data what these improvements are.

²¹⁹ *Id.* at art. 25.

²²⁰ Huai River Measures, *supra* note 206, at art. 27.

²²¹ *Id.*

²²² *Id.* at art. 28.

²²³ Wang & Ongley, *The Huai River Example*, *supra* note 204, at 294.

²²⁴ ECONOMY, *supra* note 12, at 5.

²²⁵ Wang & Ongley, *The Huai River Example*, *supra* note 204, at 294.

²²⁶ *Id.*

In 1998, approximately forty-eight percent of the river system was classified as Class V+ (the worst class of water quality and unsuitable for human consumption).²²⁷ Flash floods in the summer of 2001 apparently caused approximately thirty-eight billion gallons of heavily polluted water to surge down the river.²²⁸ By May 2003, data indicates that water quality at 84.4 percent of the Huai River Commission monitoring sites was Class V or worse, whereas only 6.2 percent was recorded as Class III (suitable for drinking and fishing). The quality of drinking water, however, does appear to have improved, mainly through 2244 new wells and several water diversion projects.²²⁹

The failure to improve water quality along the Huai is a result of two primary factors. First, the current management system, including the delegation of enforcement powers, does not work. Secondly, the provincial and local authorities possessing enforcement responsibilities fail to carry them out.²³⁰

The poor organizational system impedes effective management. In terms of the watershed management system, the Huai River Commission, which is part of MWR, mainly deals with planning water volume in the watershed. However, the Commission lacks jurisdiction to control water resources management in the provinces (both water volume and water quality).²³¹ It also does not possess pollution planning or management powers except for coordination with SEPA in developing watershed pollution control plans. SEPA's relationship with the MWR on this issue is, as noted earlier, fraught with tension.²³² With power still in the hands of the provinces, it is doubtful that local allegiances can be overcome given China's systemic problems with local protectionism and corruption.

The Leading Group is relatively ineffective because it lacks the requisite enforcement powers. As with other enforcement problems, that authority still lies within the provinces. Thus, for example, despite the dispute settlement authority granted to the Leading Group, it cannot in practice coerce provinces to abate their pollution activities due to its lack of capacity to carry out enforcement actions.²³³ The inability of the Leading Group to settle transboundary disputes has been reported notwithstanding an increase in transboundary problems lodged through

²²⁷ *Id.*

²²⁸ ECONOMY, *supra* note 12, at 5.

²²⁹ Wang & Ongley, *The Huai River Example*, *supra* note 204, at 294.

²³⁰ *Id.* at 294-97.

²³¹ *Id.* at 293.

²³² *Id.*

²³³ *Id.*; Ongley & Wang, *supra* note 1, at 274.

the reporting system.²³⁴ The Leading Group's only truly effective power is that of granting permits for pollution control at the sluice gates.²³⁵ Otherwise, its powers are essentially only advisory in nature.²³⁶

Though the transboundary, watershed-wide water quality standards that SEPA was required to establish were an important step, these are technical standards only, and as Wang and Ongley point out, they create no legal obligations on upstream jurisdictions.²³⁷ In failing to create a legal obligation to prevent transboundary pollution, the central government has left the efforts to control water pollution along the Huai to fall prey to the same fallacies that have hamstrung efforts elsewhere. Thus, the targets established by the Huai River Measures have mostly not been met.²³⁸

Despite a regulatory regime for the Huai River watershed that, with some caveats, is an improvement on paper, the actual effect of the central government's attempt to control transboundary pollution seems to have largely failed. This failure is not unique to circumstances at the Huai River watershed, but instead is integral to many of the systemic deficiencies of China's environmental laws.

B. Private Party Attempts to Control Transboundary Pollution

Notwithstanding the numerous difficulties that surround attempts to deal with transboundary water pollution in China, private parties have on occasion proven effective in securing remedies for the adverse effects of transboundary pollution. As mentioned earlier, both the EPL and WPPCL confer on individuals the right to sue polluters if damages can be proven.²³⁹ These lawsuits have been largely successful, and illustrate that there have been some improvements in controlling the flow of pollution across borders. Yet, these cases represent but a small percentage of incidences of transboundary water pollution, and it is important to remember that few complaints culminate in any action being taken, either through mediation and conciliation, or in the courts.²⁴⁰ However, due to the relative success of private party suits compared to the overall failure of the government's regulatory regime, private litigation could become a strong vehicle for dealing with transboundary water pollution problems.

²³⁴ Wang & Ongley, *The Huai River Example*, *supra* note 204, at 293.

²³⁵ Huai River Measures, *supra* note 206, at art. 26.

²³⁶ *See id.*

²³⁷ Wang & Ongley, *The Huai River Example*, *supra* note 204, at 293.

²³⁸ *Id.* at 294, 297; ECONOMY, *supra* note 12, at 5.

²³⁹ EPL, *supra* note 94, at art. 6; WPPCL, *supra* note 57, at art. 5.

²⁴⁰ Zhao, *supra* note 185, at 174-75.

A relatively recent case between a Jiangsu plaintiff and a Shandong defendant demonstrates this point. In 2001, a significant decision was handed down that awarded damages and granted injunctive relief to fisherman in Jiangsu whose farm-raised fish stocks were severely depleted by the upstream discharge of pollutants by several factories in Shandong. After failed attempts to curb the pollution by negotiating with the local government authorities and two factories, ninety-seven fisherman from Shilianghe Village in Jiangsu sued Linshu County Paper Mill and Linshu County Chemical Plant, both located upstream in Shandong. The lawsuit was brought in Lianyungang Municipal Intermediate People's Court, a trial court in Jiangsu. Alleging that the pollutant discharges from the two factories into the river leading to the reservoir where they raised fish were killing their stocks of fish, the fishermen demanded ¥5,604,000 in damages (approximately US\$675,000). At trial, the plaintiffs were represented by the Center for Legal Aid to Pollution Victims, a public interest group that has taken the lead in China in litigating environmental cases on behalf of citizens. The main argument forwarded by the Shandong factories was that their waste discharges were within the permissible range of the standards. Rejecting this argument, the court found for the plaintiffs, awarding them the full ¥5,604,000 in damages, as well as ¥48,000 to cover the costs of investigating the incident. Additionally, the court enjoined the factories from causing further damage to the fisheries. The decision was later upheld on appeal in the Jiangsu Higher People's Court in 2002.²⁴¹

This case illustrates that recourse to the courts can be a successful avenue for resolving transboundary water pollution amongst private parties. Noticeably absent in the lawsuit was any enforcement proceeding initiated by the local EPB, and as was noted, attempts to negotiate a settlement though the EPB and government proved fruitless. Moreover, the transboundary nature of the dispute did not appear to raise any questions of the proper venue or other jurisdictional barriers. Arguably, the litigants had a more sympathetic audience in the Jiangsu court as opposed to one in the upstream jurisdiction of Shandong. While it is uncertain whether efforts to protect local interests weighed more heavily in the court's mind than the merits of the case, it does indicate at least that regional and provincial allegiances may prove an important factor in the tenacity with which governments and the judiciary will approach transboundary cases.

²⁴¹ Zhao, *supra* note 185, at 183; Wei Shantao, *Jiangsu Court Issues Judgment on Transboundary Pollution Case*, CHINA ENVIRONMENTAL NEWS, May 11, 2002 (Chinese version only).

Although information on the aftermath of the case was not available at writing, the strength of local protectionism and the apparent reluctance of the Shandong authorities to act do suggest that there still may have been considerable hurdles to overcome in enforcing the Jiangsu decision across the border in Shandong. The enforcement of civil judgments is a particular problem in China.²⁴² Nonetheless, the case demonstrates that the legal system can and does provide remedies to transboundary water pollution disputes that are brought to its attention. The case also illustrates the drastic difference between adjudicating disputes within the closed administrative process or through the public eye in the court system. The case received considerable attention in the media and was widely reported.²⁴³ Although it may not have had the effect of creating an incentive for enterprises to voluntarily reduce their pollution or provinces and local authorities to crack down on polluters, it most certainly helped to inform other aggrieved parties that the intransigence of the local government could be overcome in court.

V. RECOMMENDATIONS

The transboundary water pollution framework in China is in drastic need of reform. The overall failure of the government to develop adequate mechanisms for addressing and resolving transboundary water pollution problems deserves considerable central government attention. Reform in this sector would prove beneficial in two major respects. First, it would reduce the severity of pollution in downstream states. Second, it would significantly contribute to an improvement in the central government's effectiveness in enforcing environmental regulations as a whole because it would help mitigate the problems caused by China's decentralized system.

One of the first major reforms needed to improve the regime for transboundary water pollution is the development of a distinct body of legislation addressing transboundary water pollution. As discussed earlier, water pollution in the transboundary context receives scant attention in water pollution legislation. Although a separate law on transboundary water pollution is not necessarily the answer, a revision of the WPPCL that would incorporate a strong framework for controlling transboundary pollution is necessary. Such a revision should transform

²⁴² See generally Clarke, *Dispute Resolution in China*, *supra* note 49; FINDER, *supra* note 47; Vai Io Lo, *Resolution of Civil Disputes in China*, 18 UCLA PAC. BASIN L. J. 117 (2001).

²⁴³ See also WORLD BANK, *POLLUTION CHARGES, COMMUNITY PRESSURE, AND ABATEMENT COST OF INDUSTRIAL POLLUTION IN CHINA* (2000) (arguing that community pressure acts as a strong incentive for companies to control pollution).

the current bifurcated watershed pollution plans into a unified system to be developed by a body that would be able to affect true inter-provincial oversight and management. Under the current system, where SEPA develops watershed pollution plans but local EPBs, the MWR and local governments develop transboundary pollution plans, an adequate system is unattainable due to the reluctance of local EPBs and governments to carry out enforcement actions.

An important aspect of these revisions would be the establishment of water quality standards applicable to upstream provinces. Although it is not realistic to believe that such standards would actually be approved given the degree to which provinces would most likely resist them, the central government should rely on its powers to push for such standards.

While the system for discharge fees and fines may need to be reformed as a whole, there should certainly be a clearer approach taken to the kinds of remedies to be provided. A range of permissible fines should be established, as well as the possibility of injunctive relief, and, where necessary, criminal sanctions.

The avenues for dispute resolution also need to be drastically improved. The current preference for negotiation is incapable of sufficiently addressing problems where bureaucratic tensions (both inter-provincial and between the central government and the provinces) and regional competition have resulted in a system that is unmistakably adversarial in nature. While the settlement of transboundary disputes by the next higher government body may be preferable under the Chinese system, the administrative process needs to open itself to the participation of the affected individuals as well as civil society. Moreover, in the event of the failure of the administrative process to resolve an inter-provincial dispute, the law should allow provinces to resort to the court system. Another more drastic reform, and one which may not be feasible under the current legal atmosphere, would be to allow provinces to sue each other directly for transboundary harms.

Perhaps the most important improvement to the existing system would be to grant SEPA enforcement powers. Currently, the failures of both the intra-provincial as well as the transboundary pollution control systems are due largely to the lack of enforcement. Fault for this falls on the shoulders of the local EPBs, who, because they are beholden to local governments driven by pro-business policies, fail to carry out the enforcement activities that the law delegates to them. The answer to this dilemma is to transfer the enforcement powers to SEPA. As a truly national body, SEPA is less prone to local interests and influence. Its personnel would not be tied to the local governments, and their funding and resources would not be dependent on the very authorities that have

fought strict environmental regulation tooth and nail. Although problems with enforcement would no doubt persist if SEPA were given such powers, the widespread failure to comply with pollution requirements would most certainly diminish. Such a transformation would require a strengthening of the central government's role in the daily affairs of the provinces that runs counter to the general trend of decentralization during the reform era, yet such an about-face in the environmental arena is necessary to avert China's worsening water crisis. The necessity of a national body is particularly strong in order to counter transboundary problems, because in the intense competition between regions and provinces, upstream jurisdictions are loathe to enforce potentially economically harmful environmental regulations that may only help make their downstream adversary more competitive. Armed with the power to crack down on polluters, a national enforcement body will not fall prey to such competition.

Both in the existing regulatory framework and in any reforms, government ministries at all levels need to engage in more coordination of policy planning, data gathering, and information sharing. SEPA, the MWR and the River Commissions and other watershed management groups rarely work together. The result is an overabundance of overlapping, redundant policies, and a dearth of effective, unified management. This is most evident in the approach to watershed management.²⁴⁴ A well-coordinated effort to manage watersheds would make significant strides towards controlling transboundary pollution problems. The answer to this problem lies not so much in the law, however, as it does in the institutional idiosyncrasies and bureaucratic politics that have frustrated coordination. In this respect, the central government can play a valuable role in taking the lead in orchestrating integrated planning between SEPA, the MWR, and the various provincial and local government authorities.

Lastly, perhaps one of the greatest improvements would come from a serious and concerted effort to enforce the existing environmental laws on water pollution. Although not explicitly transboundary in its scope, the side-effect of effectively enforcing the WPPCL would certainly reduce the amount of wastewater discharges that pollute downstream regions. It goes without saying that many of the problems identified in this paper are closely linked to this problem, and much would be done to alleviate the plight of downstream jurisdictions if the admittedly imperfect regime laid down in the WPPCL were to be adhered to.

²⁴⁴ Ongley & Wang, *supra* note 1, at 272-73.

VI. CONCLUSION

The analysis that this Note has undertaken indicates the severity of China's transboundary water pollution problems. It also indicates the failure of its legal system to adequately alleviate the toll water pollution is taking on the country's environment and the health of its people. As this Note has endeavored to illustrate, both the nature of the transboundary water pollution dilemma and the reforms needed to overcome it reflect greater systemic problems that China's legal and administrative system face. While a strengthening of the development of transboundary water pollution law will no doubt help to resolve the plight of downstream jurisdictions, this is not sufficient on its own. Much of the action needed to be taken lies in the broader panoply of reforms that China must embrace in order for its path towards better development to continue to advance.

