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Old problems and new dilemmas: the conundrum of environmental management reform in China

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ABSTRACT

Underpinning China's severe and continuing environmental degradation is a stubborn gap between environmental regulation and regulatory enforcement at the local level. In the past, scholars have sought explanations for the causes of this implementation gap by interviewing frontline environmental officials. Due to the fact that the self-perception data used in most of those existing studies were gathered prior to 2012, the possible factors contributing to the compromised effectiveness of local environmental enforcement from 2012 onward remain largely unknown. This empirical weakness should not be overlooked, as the prevailing institutions governing China's local environmental management practices have been experiencing many frame-breaking transformations since 2012. Drawing on semi-structured interviews with leaders of environmental law enforcement teams in all administrative districts of Guangzhou in 2017, this paper not only summarizes pervasive elements which negatively impact the current effectiveness of environmental regulatory efforts, but also provides qualitative evidence and theoretical accounts for three enforcement dilemmas stemming from reform measures taken by the central government.

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When describing China, one must mention pollution. Indeed, discussions of China's severe environmental degradation are much in vogue these days among political leaders, academics, and even local citizens. What makes this topic particularly attention-getting is not only the fact that China's pollution problem has 'no clear parallel in history' (Kahn & Yardley, 2007, p. 1) but also because China's authoritarian system, though it has successfully defended itself against threats to the ruling legitimacy of the Communist Party, has not yet accomplished its avowed goal of striking the delicate balance between economic development and environmental protection over the past three decades.

In the past, researchers have attributed China's environmental predicament to the stubborn 'gap between environmental regulation and regulatory enforcement' (Lo & Fryxell, 2005, p. 561) – which is more commonly referred to as an implementation failure (Hill & Hupe, 2002; O'Toole, 1986). Specifically, although the central government has promulgated a broad spectrum of environmental laws and regulations, the environmental protection bureaus (henceforth: EPBs) at the local level have done little to faithfully implement or enforce those policies (e.g. Li & Higgins, 2013; Ma & Ortolano, 2000). There are three major explanations for this phenomenon. (1) Local governments have competing policy priorities in which environmental protection takes a back-seat to pro-growth initiatives (widely known as local protectionism; see: e.g. O'Brien & Li, 1999; Ran, 2013; Van Rooij, 2006, 2010; Xu, 2011). (2) Given the presence of information asymmetry and the accompanying high transaction costs, higher-level governments are unable to effectively monitor and control subordinate bureaucracies (Tang & Zhan, 2008; also see: Kostka, 2014). (3) In addition, external pressures are negligible because regulatory influence exerted by industry stakeholders (associations) is merely symbolic and the de-facto

legitimacy of environmental nonprofits remains questionable in China (e.g. Li & Chan, 2009; Lo, Fryxell, & Tang, 2010).

Since these arguments were made based primarily on interview and archival data gathered prior to 2012, one may begin wondering whether the identified factors contributing to the compromised effectiveness of local environmental enforcement still hold true from 2012 onward. This potential doubt is indeed hard to counter and should not be overlooked either because the prevailing institutions and legal frameworks overseeing China's environmental management practices have been experiencing many frame-breaking transformations. Since Xi Jinping took office as the Secretary General of the ruling Chinese Communist Party in 2012, China has tightened its grip on environmental governance and exemplified its commitment to environmental improvement through 'an increasing number of innovations or experiments' (Shin, 2018, p. 830). To name a few recent ones, an environmental tax has been levied since January 2018, significantly raising the costs of noncompliance on the part of polluters (Kostka & Zhang, 2018). Regional environmental supervision centers have been newly tasked to implement the centrally orchestrated data verification program which aims to deter local leaders and EPBs from over-reporting the amount of emission reductions (Zhang, 2017). Additionally, 'to promote public participation as a way to foster environmental protection and to bypass the frequent inertia of local governments' (Zhang & Mayer, 2017, p. 206), amendments to the Civil Procedure Law were passed by China's top legislature in 2014, allowing duly-registered NGOs (both government-sponsored and grassroots) to file public-interest lawsuits as plaintiffs against whoever undermining public welfare on environmental matters (*Xinhua* 2017). These added legal 'sticks' and bureaucratic measures, by all appearances, are compelling evidence that those widely-recognized and 'long-standing dilemmas faced by the EPB in the complex politics of the local state' are being adequately addressed (Kostka & Zhang, 2018, p. 773).

While helping forge China's 'green' image on the worldwide stage, have and at what cost do environmental-related reform efforts truly put China on the winning side of its 'war against pollution?' (Tatlow, 2014) This paper strives to provide some answers to these questions. Capitalizing on the rare opportunity to interview leaders of environmental enforcement teams in various districts of Guangzhou in 2017, this paper dissects enforcement issues commonly faced by frontline environmental officials at present. As long pointed out by Lo, Fryxell, and Wong (2006),

the perceptions of enforcement officials are important in their own right. This is because it is the enforcement officials that are 'in the trenches' of enforcement and, therefore, in the best position to provide information about why regulations fail on the ground. (p. 395)

Based on interviewees' perceptions of the difficulties and challenges they routinely encounter, I have concluded that the enforcement of environmental regulations at the local level remains weak and can be attributed to three long-existing, unaddressed shortcomings – a shortage of budgeted staff, absence of personal security, and a lack of motivation on the part of officials. To turn this tendency around, executives at the Ministry of Environmental Protection (renamed as the Ministry of Ecology and Environment in 2018) established institutional reforms, three of which have exuded their local influences. They are: a thorough separation of investigation and decision-making entities (*chachu fenli*), a vertically integrated management structure (*chuiizhi guanli*), and a tightened political accountability system (*gangxing wenzhezhi*). These steps toward reform are designed to enhance the independence and bureaucratic responsiveness of local environmental administrations. Nonetheless, my findings further suggest that these 'internal shifts' have led to enforcement dilemmas that plague environmental officials daily. Specifically, the (re)centralization of environmental authority in the form of vertical integration drives a wedge between local governments and EPBs, thus diminishing the possibilities of inter-agency collaboration essential to the attainment of more effective regulatory outcomes in the future. In addition, the complete separation of the investigation and decision-making units severely undermines the credibility and deterrence of local environmental enforcement squads as they are institutionally insulated from having a say on the administrative decisions made against the investigated polluters. Finally, dramatically increased top-down expectations, coupled with 'stick' approaches (i.e. accountability mechanisms), on local environmental administrations' prompt handling of citizen petitions and complaints signal distrust and have dealt a mighty blow to the work motivation of individual employees.

The remainder of this paper is organized as follows. I first introduce an account of the data source and method used in this study. Empirical findings detailing the factors that currently facilitate or impede the enforcement work of local EPBs are subsequently presented in the form of abundant narrative data. By systematically exploring both the staffing levels and the attitudinal differences in the perceived government and media support across enforcement teams at the district level, I come to realize in the fourth section that (1) the enforcement performance of local EPBs is partly a function of their staffing levels and (2) growing government and media attention paid to environmental protection is considered by the frontline environmental officials more as a mixed blessing. The fifth part consists of three subsections, each of which is devoted to (a) a discussion of the ramifications of the respective bureaucratic counterstrategy initially designed to solve enduring problems of the local environmental management regimes, and (b) an attempt to make sense of the inevitable emergence of the identified enforcement dilemma from a theoretical standpoint. The paper concludes by offering several implications that not only advance an understanding of the fundamental fallacies inherent in China's governance ethos but also help future scholars to seek 'institutional solutions' to the problems discussed throughout this article.

Setting, data, and method

Similar to other authoritarian countries, environmental issues in China are managed predominantly through a top-down hierarchical system. The State Environmental Protection Administration, which in 2008 was upgraded to the Ministry of Environmental Protection (henceforth: MEP) and renamed the Ministry of Ecology and Environment (MEE) in 2018 in honor of the increasingly important role environmental stewardship has played in the country's overall strategic planning, serves as one of twenty-six integral departments within the State Council. To regain China's blue sky, green landscapes, and clean water, the MEP assumes responsibility for the following main elements: (1) the joint promulgation of environmental laws, regulations, and guidelines; (2) the establishment of implementation branch offices at provincial, city, and township levels; and (3) the institutionalization of an accountability system to monitor the enforcement efforts of local environmental entities.

The multilayered structure of China's environmental management system can be visualized using the [Diagram 1](#) below. Subordinate to MEE, each province has its own Department of Environmental Protection. Below this level, each city has set up an Environmental Protection Bureau, underneath which are the implementation branches in each district within the respective city boundaries. Additionally, local environmental work in China is aided by relevant subsidiary organizations labeled as 'service organizations' or 'extra-bureaucracies' (*Shiye Danwei*). They are (in part) governmentally funded and tasked to deliver public service. Unlike core party-state organs (i.e. government agencies), these subsidiary units enjoy a relatively greater financial flexibility and 'looser recruitment rules than the formal civil service' (Ang, 2016, p. 243). Their most evident appeal is to help maintain sufficient staff for the delivery of public service while not ballooning the size of formal bureaucracy. Using the EPB system in Guangzhou (the organizational chart of which is shown in [Diagram 2](#)), our primary locale of investigation, as an example, there are six subsidiary organizations aiding its governance of local environmental affairs: *Centers of Solid Waste Management, Environmental Information, Environmental Technology, Environmental Monitoring, Environmental Education and Publicity, and the Research Institute of Environmental Science*.

Our data consisted of in-depth interviews with enforcement team leaders serving in various districts of the Guangzhou EPB.¹ Ranked the third largest city in China, Guangzhou serves as the country's forerunner in launching economic reforms, which began in the early 1980s. Typical of other sizable metropolitan cities in developing countries, Guangzhou suffers from severe environmental degradation and epitomizes the painful tradeoff between economic growth and environmental protection. According to a Bluebook report released by the Chinese Academy of Sciences in 2016, Guangzhou is listed as one of the five 'least' livable cities in the country.

Interviews were conducted between December 2016 and March 2017. Among all 12 administrative districts in Guangzhou, we interviewed representatives (the heads or the acting heads) of environmental law

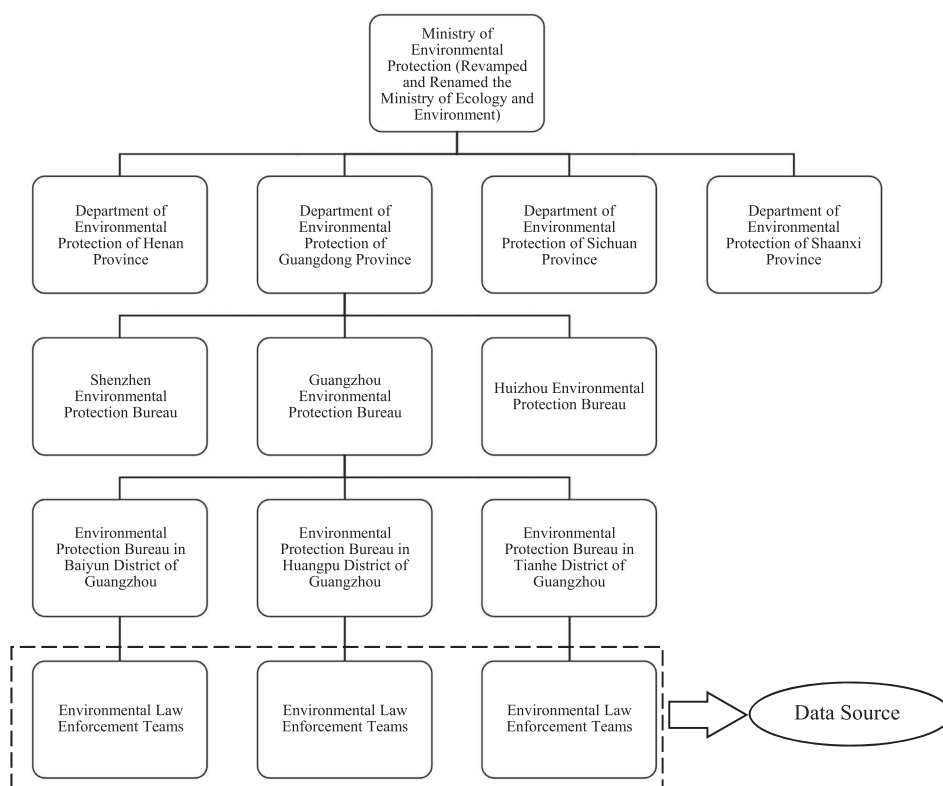


Diagram 1. The hierarchical structure of China's environmental management regime (entities are not exhaustively listed).

enforcement teams from 11 districts, yielding a coverage rate of 90%. A summary of the key features of these 11 districts is provided in the [Table 1](#). The only district that was not included embarked on an enforcement reform in May 2013. A so-called ‘comprehensive’ bureau of administrative enforcement, which absorbs the enforcement arms of all government departments in the district, was created to formalize and facilitate the implementation of decision-making processes across all policy arenas. The exclusion of this district in the analysis is thus the result of much deliberation, given that the bureaucratic apparatus of its environmental protection system differs somewhat from that of the typical administrative districts.

Each interview, arranged by the Guangzhou Research Institute of Environmental Science, lasted 80–120 min. It included (1) brief descriptions of the teams’ major duties and responsibilities, (2) strategies employed to more effectively enforce regulations, (3) discussions of major difficulties and challenges encountered during the enforcement process, (4) perceptions of the reform initiatives proposed by the MEP (5) and sources of on-the-job stress. Interviews were all semi-structured, meaning that interviewees were at liberty to discuss issues beyond the scope of predetermined topics.

Long-standing hurdles to local environmental enforcement

The complexity and difficulty inherent in the implementation of environmental policies in China have been extensively studied (e.g. Kostka, 2014; Lo & Tang, 2006; Ran, 2013; Schwartz, 2003; Swanson, Kuhn, & Xu, 2001). Yet identified factors that prevented the local realization of environmental protection goals of the central government remain macro based, lacking a humanistic angle. Scholars led by Zhan, Lo, and Tang (2014) thus call for analysis that generates personally relevant and ‘contextually valid knowledge’ (p. 28) by which more tangible and emotionally charged obstacles to the effectiveness of environmental policy implementation can

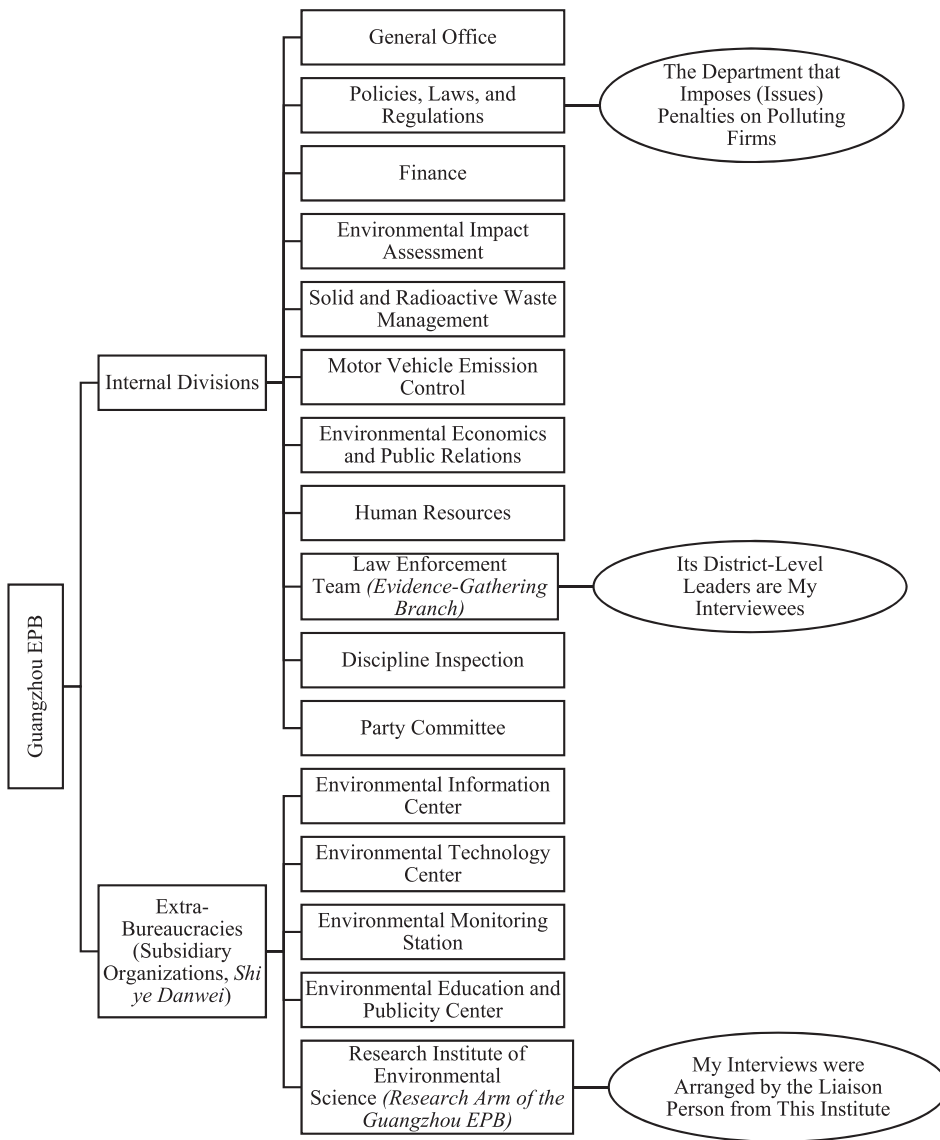


Diagram 2. Organization structure of Guangzhou Environmental Protection Bureau (EPB) (As of 2016). Note: Information Gleaned from the Official Document Titled 'Historical Review of the Development of Guangzhou Environmental Protection' (*Guangzhou Huanjing Baohu Fazhan Licheng*), p. 342.

be understood and overcome. In the remaining portion of this section, I classify the challenges Guangzhou EPB officials face in their daily enforcement activities into three main categories – lack of budgeted manpower, lack of personal security, and lack of morale on the job. A summary outlining these key enforcement difficulties is summarized in [Table 2](#).

Lack of budgeted manpower

When asked about the most prominent difficulty enforcement team leaders experience in fulfilling their job duties, all pointed to severe understaffing. Due to plans to streamline and downsize bureaucracy, the staff

Table 1. Basic geographic and socioeconomic information of Guangzhou administrative districts.

Administrative district of Guangzhou	GDP Per Capita (in U.S. Dollars)	Area (in square kilometers)	Major polluting sources
District A	36594.59	137.38	Hospitals; Car dealerships; Printing houses
District B	14274.41	90.40	Restaurants; Food processing firms
District C	17601.19	529.94	Electricity, furniture, and garment factories; Big-sized chemical firms
District D	10788.37	795.79	Unlicensed food stalls and workshops
District E	17862.24	970.04	Miscellaneous types of medium-sized factories.
District F	37738.87	33.8	Service-oriented industries (e.g. hospitals, restaurants, and entertainment venues).
District G	52506.06	486	Sizable petroleum firms; Logistic companies
District H	28635.28	783.86	Construction sites
District I	N/A	39.3	Sewage treatment companies; Power plants
District J	14192.83	1616.47	Unlicensed workshops providing subcontracted services to large-scale enterprises
District K	9063.67	1985.26	Restaurants; Tourism and entertainment industries developed around national parks

establishment of EPBs at all administrative levels is under stringent control (see: Lo & Tang, 2006). The overarching principle is ‘reduction only.’ Based on my review of official data provided in GEPPB’s budget and final account reports, a total number of 156 and 155 administrative positions (i.e. civil service posts, *gongwuyuan bianzhi*) were budgeted for fiscal years 2012 and 2018 respectively, despite an apparent surge of workload over these past six years.

In fact, several interviewees admitted that their enforcement teams had not been given the go-ahead to recruit new members for years. Unsurprisingly, shorthanded teams have led to many enforcement predicaments. To begin with, the availability of equipment, such as cars, is determined in accordance with the respective number of team members. Therefore, a shortage of personnel is concomitantly accompanied by an inadequate supply of equipment. The enforcement team in District H, for example, was at the time still awaiting approval to purchase a seven-seat vehicle for visits to inspection sites. In addition, a lack of staff has spurred employees to develop suboptimal coping strategies, which have led to haphazard enforcement. In other words, instead of arranging for systematic, routine inspections of all polluting firms, enforcement teams concentrate only on investigating organizations that have had complaints lodged against them. Although less time-consuming, this complaint-driven strategy prevents enforcement teams from taking any proactive measures against businesses that are on the brink of violating environmental laws and regulations. Lastly, given the insufficient infusion of new blood, the average enforcement team member is in his or her mid-40s. One leader lamented that no enforcers under his wing were in their 30s. Since frontline regulatory work is physically demanding, the enforcement capacity of these environmental teams has been further undermined by an aging workforce.²

Lack of personal security

Of the eleven interviewees, eight have worked in their field for over 15 years, which helped them attain leadership positions in various administrative districts in Guangzhou. These law enforcement officials at the grass-roots level discussed the frequent occupational hazards of extreme vigilance and paranoia resulting from their daily negotiations or confrontations with polluters. Understanding that the nature of their job inevitably invites notoriety and scorn among the public, leaders confided that they habitually looked over their shoulders. More than half of the interviewees told of situations in which their personal safety was on the line during the enforcement process.

Specifically, interviewees complained that environmental regulators in Guangzhou often did not ‘dare’ to employ a stern enforcement style, as playing hardball with small businesses that pollute generates social repercussions (see: Van Rooij, 2006). The owners are either low-income or migrant workers who have invested all their resources hoping to escape from poverty. Closing down these small business startups is perceived as no

Table 2. Summary of interviews on major difficulties/challenges faced by local environmental enforcement teams.

	Lack of budgeted personnel	Lack of personal security	Lack of career motivation
District A	11 members of law enforcement are on loan to other integral departments, some of which are budgeted with only one civil service position, within the EPB. Due to understaffing issues, it is impossible for us to effectively fulfill our enforcement duties.	No specific examples	Average employees in the EPB earn a monthly salary of only RMB 7000 The subsidized housing program was halted nationwide in early 2000. Motivating and cheering up my fellow teammates seems pointless because I, as the team leader, have nothing concrete to offer or to promise.
District B	Local EPBs are currently experiencing a hiring freeze. Temporary workers, though professionally less qualified, are hired to deal with daily tasks.	It is always a headache to enforce environmental regulations on small household workshops, as the livelihood of entire families might be at stake. Any inconsiderate, albeit legally spot-on, enforcement decisions will be ill interpreted and trigger social contradictions.	Our monthly salary cannot even pay for one square meter of residential real estate. Pay raises are an attention-getting rumor only. My salary last year was only 31 bucks more than what I earned in 2008.
District C	Understaffing is the primary reason that regulations are rarely enforced in restaurant businesses.	When investigating a local firm that provides lard to customers, we were surrounded and later stalked by 8 workers holding butcher knives.	Over the past 15 years, our salary was increased only once.
District D	As a result of staff shortages, adopting a proactive enforcement strategy – conducting frequent or unannounced environmental inspections – has become a far-fetched goal.	Heads of big corporations are good friends of many governmental leaders and therefore are politically very resourceful. Displeasing the powerful – an inevitable outcome of environmental enforcement – makes everyone in our team feel that he or she is walking on eggshells.	Our team has an official staff establishment of 32 people, in which merely 4 leadership positions are created and budgeted. Unless one of these four 'leaders' reaches his or her mandatory retirement age, the prospects of promotions for junior team members are categorically zero.
District E	Given the impossibility of additional hires, burdens associated with environmental enforcement fall completely on existing team members who consequently work until 2 am on certain days.	Some regulated firms hire rogues or even gang members to frighten enforcement officials. Request for the creation of police stations, housed within local EPBs, was denied.	Due to the unlikelihood of receiving promotions within a reasonable time frame, most people don't want to continuously work for the environmental protection system, particularly its enforcement arm. Even if they don't resign, they will find a way to be transferred to another government department.
District F	Facing a huge gap in hiring, each member in our enforcement team has to be responsible for overseeing the operations of over 200 polluting firms.	It is not an urban legend that we sometimes get beaten up by confrontational firm owners.	It is not uncommon in our team that environmental officials hold the lowest administrative rank even in their late 50's.
District G	Only 11 people, with an average age of 50, are currently working in the frontline for our enforcement team.	No specific examples	Pay raises in the past were unexceptionally symbolic. Relying on my income to purchase property is not a realistic shot in the present day.
District H	Many visionary enforcement plans and blueprints cannot be carried out due to the shortage of employees.	When reason fails, they try force. After all, no business owner is willing to voluntarily part with RMB 300,000 in the form of fines. Some of them were short-tempered and threatened to attack us.	If I could choose, I would leave the enforcement team. We are powerless in many aspects, we are understaffed, and we are undercompensated. The employee turnover rate in the environmental protection system is higher than that in other public sectors.
District I	Although the budgeted size of the staff establishment is 15 people, only 11 people are actually working on the enforcement team.	Small-sized firm owners are particularly dangerous. After investing all they have in starting and running the businesses, they possess a 'sink or swim' mentality. When we explained that their operations were environmentally illegal, they threatened to hurt themselves or cut us to pieces.	It is a pervasive phenomenon in our system these days that government employees, even those in leadership positions, resign and seek private employment. Subjects relating to pay raises have been put on ice for years.

(Continued)

Table 2. Continued.

	Lack of budgeted personnel	Lack of personal security	Lack of career motivation
District J	Among all 27,000 enterprises formally registered in our district, nearly 60% of them are industrial firms that are subject to periodical inspections. However, I cannot even fathom how our team, consisting of less than 20 people, manages to oversee the activities of over 10,000 polluting firms. Government leaders, who are fully aware of our understaffing situation, believe that we are 'ants lifting hundreds of times our own weight.'	No specific example	No one stays in the enforcement team by choice. Our chances of receiving promotions are infinitesimal. This is basically why individuals with high educational credentials never linger long in our bureau. We always deceive ourselves that opportunities will turn up. Holding onto a false hope helps us live through all the rough patches.
District K	Our district covers an area of 2000 square kilometers. On average, each enforcement team member is responsible for regulating the activities of all firms within a radius of 200 km ² . We consider ourselves firefighters, who are always 'on the road.'	A business owner, who ached to overturn our enforcement decisions, once organized his employees to demonstrate in front of our office building. We were attacked with red paint.	Our pay levels fail to keep pace with the cost of living, particularly when escalating housing prices are taken into account. While we are unlikely to resign from our positions on a whim, we definitely complain about our job all the time. As frontline enforcers, we are burning the candle at both ends. In fact, I have many more grey hairs than I used to.

different than driving the underprivileged into a corner, possibly leading to social unrest that is explicitly discouraged by the central government. Similarly, tackling medium-sized industrial factories is far more challenging than one might expect. Due to the fact that security guards are hired to patrol around the neighborhoods, the firm executives are commonly tipped off in advance about the environmental inspections. What's worse, when illegal activities are exposed, firm owners go to great lengths to escape punishment, including verbally threatening inspectors' lives and summoning guards to block off the exits and further intimidate inspectors. When recollecting some of those chilling experiences, it is no wonder that enforcement team leaders describe their work as 'walking on eggshells.'

Lack of on-the-job morale

When asked about the methods used to boost the morale of subordinates, interviewees rolled their eyes and shook their heads. According to the leader of District B, 'Individuals who pass the civil service admission exams are inherently brilliant and capable.' Nonetheless, the vast majority of them earn a monthly salary of approximately RMB 6000, which cannot even remotely pay for one square meter of residential real estate in Guangzhou these days. My review of GEPB's budget and final account reports adds a more illuminating light on this subject. A total salary and benefits expenditure of 39,733,700 (RMB) was budgeted in 2012 for a staff size of 175 people (including temporary personnel). These two respective numbers became 102,847,200 (RMB) and 434 in 2018, yielding an average monthly amount per person less than 1,000 (RMB) higher than that of six years ago. The housing price over these past six years, however, took a much farther leap – from around 16,555 (RMB)/m² to almost 40,000 (RMB) /m².

In addition, the interviewee from District D told me that only four leadership positions were budgeted for his entire team, which has 32 staff members. Unless one of these four 'leaders' reaches his or her mandatory retirement age, the promotion prospects for junior team members are categorically zero. The leader of District F, who faces similar bleak working conditions, has all but given up on boosting his fellow teammates' morale. In his opinion, the requisite condition for working hard is love for the job. If this is absent, people are likely to become demotivated. It is not uncommon for environmental officials to hold the lowest administrative rank even in their late 50s. In this disappointing scenario, as he contended, any encouraging words would fall on deaf ears.

Exploring inter-district differences

While the insufficiency of regulatory capacity at the organizational level and the dwindling work motivation at the individual level are considered major hindrances to effective environmental enforcement, the extent to which these existing impediments result in destructive consequences noticeably varies across administrative districts in Guangzhou. For instance, in my interviews, when asked to name a top-performing environmental enforcement team among all regions in Guangzhou, the interviewees unhesitatingly referred to the one in District C. When encouraged to comment on an underperforming team, they frequently mentioned one that serves District D. Since no systematic, performance-based comparison has ever been conducted among environmental enforcement squads at the district level, a window of opportunity is opened to lay bare these variations and ponder the underlying causes.

A staffing perspective

Table 3 below shows each district's precise staffing situation in environmental enforcement. In light of descriptive data presented in a tabulated manner, the reason with regard to why district C is spoken highly of but district D is concerned becomes apparent. Specifically, the ratio of frontline environmental enforcement officials to the jurisdictional population is around 0.24 per 10,000 people in District C. This statistic, however, is only approximately 0.08 in District D. As a matter of fact, by taking a closer look at this table, it is found that district C possesses the highest number on this score whereas district D hits rock bottom. The underlying reason behind this noticeable difference can perhaps be both historically and economically explained. Originally a county of the Guangdong Province but converted to a district of Guangzhou in early 2000, District C is one of the most affluent districts in Guangzhou and its governments has thus been able to commit additional resources to ensure that major functional departments and bureaus are adequately staffed (Lo, Fryxell, van Rooij, Wang, & Li, 2012). District D, nevertheless, is much less lucky in this sense. As an economically mediocre district in Guangzhou, District D is geographically gigantic but its government possesses no extra resources to help alleviate the understaffing situation that exists among public agencies in the jurisdiction. Moreover, according to the interviewee, although the designated number of members on the environmental enforcement team in District D is 32 people, no more than 20 people are actually employed there. The remaining personnel are somehow 'borrowed' by other shorthanded departments within the EPB of that district. While understaffing is indisputably ubiquitous across all enforcement teams, none of them reaches the level at which more than one third of the budgeted officials are not performing their primary duty. Imaginably, charged with responsibilities to environmentally regulate activities transpiring in a highly populated area, a severely understaffed enforcement team cannot possibly do wonders.

Table 3. Understanding the environmental enforcement capacity of each district in Guangzhou from a staffing perspective.

Administrative district of Guangzhou	Resident population (10,000)	Total number of sub-districts and towns governed	Size of the staff establishment for its environmental enforcement team	Actual number of environmental enforcement team members with official civil service posts
District A	154.57	21 Subdistricts	25	14
District B	161.37	18 Subdistricts	23	14
District C	154.41	6 Towns; 10 Subdistricts	37	37
District D	240.34	4 Towns; 18 Subdistricts	32	20
District E	101.58	6 Towns; 4 Subdistricts	24	17
District F	115.68	18 Subdistricts	25	21
District G	89.85	1 Town; 14 Subdistricts	18	11
District H	65.58	6 Towns; 3 Subdistricts	20	20
District I	N/A	N/A	15	11
District J	87.25	7 Towns; 4 Subdistricts	24	18
District K	62.29	5 Towns; 3 Subdistricts	16	7

Note: Descriptive data (i.e. population size) for the above districts are as of 2015. The rest is based on the information provided by interviewees.

A perceptual perspective

During the interview process, leaders of the environmental enforcement teams were also prompted to elaborate on their candid perceptions concerning the levels of government support for environmental protection as well as the utility of media, the answers to which cannot possibly be known otherwise. Their responses turned out to be fairly divided. Some interviewees flew off the handle when the word ‘media’ was mentioned, while others considered media as a beneficial addition to keep enforcers informed about underground firms that devastate the environment. Similarly, some interviewees regarded the government leaders’ policy emphasis on environmental protection as genuine, whereas others interpreted the support as egocentric, believing that they [government officials] backed pro-environmental policies to avoid blotting their copybooks rather than displaying an intrinsic care for the planet. Coincidentally, the interviewees who turned their noses up at the media are exactly the ones who depicted the receipt of government support in a, more or less, disapproving tone. Below are two tables that exemplify these sharply contrasting points of view *vis-à-vis* united fronts (Tables 4 and 5).

As can be clearly seen from both tables, no consensus is reached among the enforcement team officials on their sentiments towards the government and media support. Taken together, their ambivalent views can be respectively made sense of from the following two lenses in general. (1) To begin with, while local government leaders have paid greater heed to environmental protection, their increased environmental support also comes with heightened pressures and expectations. More ironically, in the eyes of the interviewees, the dramatic increase in the magnitude of their enforcement duties have not been matched with a sufficient provision of additional resources needed for environmental protection. Enhanced government support is thus considered no different than a psychological burden or well-intentioned distractions from their actual enforcement duties. (2) Similarly, widening media coverage on environmental-related complaints and incidents is believed to be helpful in principle by the enforcement team leaders, as newsworthy events oftentimes induce cooperative efforts from key local government players. Yet, it is also in the back of the interviewees’ minds that inaccurate or out-of-context media reports are not uncommon and are likely to bring non-rewarding and hard feelings to them. The fundamental reason that officials in heavily understaffed enforcement teams are more inclined to hold reservations about or even react negatively to local government and media support is that the tension between their limited organizational capacity and rising performance expectations is much acuter.

Table 4. The perceived role media play in environmental enforcement.

<i>Negative</i>	
District H	Media always sheds a negative light on our enforcement work. Mews reports are rarely accurate.
District B	The predominate number of news reports these days are untrue and extremely negative. Journalists are not often held personally accountable to these mistakes.
District D	News reports are sometimes biased and fake. There is a pressing need for the establishment of the press accountability system.
District G	Media is fond of taking words out of context. News reports are always written in a scandalous and quizzical tone to attract readership. I avoid dealing with them to the best of my ability.
District K	Media do not report objectively these days. They like to take a radical stance to help boost circulation. Making matters worse, the public often overlooks the fact that the proof is in the pudding. They form their opinions based solely on the information fed by the media.
<i>Positive</i>	
District A	Press helps our team get a sense of public opinion, and more importantly, enables us to investigate those underground businesses that won’t be exposed otherwise.
District I	Media these days is very neutral. They are becoming friendly and focusing more on the positive side of our work.
District C	Media express its viewpoints pertinently and appropriately. It helps us introspect about the mistakes we’ve made.
District E	Mass media is the watchdog of power abuse. Its intervention in our regulatory enforcement demonstrates the government’s resolution of making its administration more open and transparent.
District F	Journalists are empathetic with us. They understand our difficulties and don’t usually give us a hard time.
District J	The media pressure is omnipresent, as news travels fast these days in light of the advances in communication technologies. That being said, we have not found this type of pressure overwhelming yet, as the environmental quality of our district, after all, outcompetes other districts in Guangzhou (1st place last year, and 2nd this year).

Table 5. The perceived level of support lent by government leaders in environmental enforcement.

<i>Negative</i>	
District H	Our government places its heavy emphasis on economic growth. Speaking of environmental protection, government leaders behave reactively instead of proactively. They won't bother even talking about it as long as there's no occurrence of major environmental mishaps or clear signs of backwardness in overall environmental quality.
District B	The government leaders in my district give the appearance of being environmentally conscious, but in fact, they are swinging for the fences to strike a nice balance between environmental protection and economic development.
District D	It seems that the government pays slightly more attention to environmental matters these days.
District G	Government leaders are not interested in what we're doing on a daily basis, nor the difficulties we've encountered. They only care about if those quantifiable, environmentally-related targets are hit or accomplished.
District K	I am not at liberty to comment on this question. For the time being, let's stick to the official line that our district government fully supports all efforts pertaining to environmental protection.
<i>Positive</i>	
District A	Government leaders greatly emphasize environmental protection. More importantly, they understand that talk is cheap. They act on it!
District I	Our district government is quiet forward-thinking. It provides us with a great deal of financial support. To minimize pollution at its root cause, our government proposes preferential policies that are deemed attractive solely to high-tech undertakings with low-polluting potential.
District C	Government takes issues relating to environmental protection seriously. We are provided with a tremendous amount of support, both financially and administratively.
District E	Government leaders in our district are definitely doers. They not only inquire about the progress of our work, but also assume a supervisory role in our dealings with big polluters.
District F	It goes beyond dispute that environmental protection is a high policy priority on the agenda of the district government.
District J	Environmental protection is high on our district government's agenda. Government leaders are not oblivious of the enforcement difficulties I just mentioned. It just takes time to make institutional breakthroughs.

Institutional dilemmas stemming from recent environmental management reforms

In their article, Lo and Tang (2006) contend that China's environmental regulatory apparatus has undergone significant transformations since 2000 to cope with escalating environmental challenges resulting primarily from the country's record-setting economic growth and vastly changing socioeconomic structures (see: Lewis & Xue, 2003). While useful in addressing a plethora of current problems, these institutional innovations also have brought about new sets of enforcement complications. The well-known practice of creating 'two separate lines for revenues and expenses' is a prominent example. To combat the incentive distortion in which environmental officials look the other way regarding polluting behaviors so that related charges can be billed (Ma & Ortolano, 2000), local EPBs are required to relinquish their power to retain a portion of the fees and fines collected from polluters (Tsui & Wang, 2004). Unfortunately, although this approach does help dignify environmental regulatory actions, it has seriously undermined the enforcement capacity of local environmental administrations by crippling them financially.

Despite an over ten-year interval since the publication of Lo and Tang's paper, our interviews in 2017 suggest that China has never slowed its pace in reforming governing institutions in the domain of environmental protection over the past decade. In response to prevalent challenges posed to enforcement officials at the local level, central government leaders have initiated several changes since 2010 (See: Kostka & Zhang, 2018; Shin, 2018). Three noteworthy reforms, which depart from the goal of stemming the tide of the problems identified in the preceding section, are identified below. Paradoxically, although these reforms could partially ameliorate China's environmental management practices, they have similarly given rise to fresh challenges, presently and in the not-so-distant future.

Separation between investigation and decision making vs. regulatory deterrence

In order to ensure that punitive decisions made against polluting firms are legally binding and situationally consistent, environmental enforcement teams in China have recently been tasked with investigative responsibilities only.³ Simply put, after conducting thorough investigations, enforcement teams turn over all pertinent evidence to the *Department of Policies, Laws, and Regulations* (DPLR) which possesses the discretionary power to decide (1) whether legal claims can be established against the accused polluters, and (2) what specific punishments

should be imposed. By separating investigative and juridical functions, institutional designers hope to ensure the safety of enforcement officials given that no verdict will be made on the scene.

When ultimate decision makers and enforcers are two separate players, the classic principal-agent (PA) relationship comes to mind, in which the ‘agent’ utilizes his or her time and expertise by performing services on behalf of the principal (e.g. Bertelli & Lynn, 2006; Shipan, 2004). To some extent, the dynamic between the environmental enforcement team and DPLR mirrors this very relationship. Put differently, enforcement officials utilize their frontline experience, skillsets, and allocated inspection equipment to collect evidence on businesses that illegally pollute, ultimately helping DPLR to reach accurate conclusions and to make fair rulings accordingly.

That being said, the PA relationship is inherently contentious and does not necessarily suggest efficiency. While staying in a cooperative state, the principal(s) and the agent(s) do not trust each other because their risk preferences (shaped by asymmetric information) and objectives are inherently divergent (Ferris, 1992). For example, the agents can capitalize on their information advantages to thwart the initial expectations of the principals. Conversely, the principals can behave in an extremely risk-averse manner and choose to let the agents’ efforts go to waste. In our study, the principal-agent problem became externalized and clear⁴ in the interviewees’ passive-aggressive insinuation that their enforcement teams are not encouraged to ‘stick their noses in where they are not wanted.’ After rounds of back-and-forth exchanges, they revealed the reasons for their frustration in that not only do the enforcement teams (the ‘agents’) and DPLR (the ‘principal’) have distinct goals and interests, their perceptions about risk are vastly different as well (see: Eisenhardt, 1989). As a result, misunderstandings are prevalent. Specifically, to guarantee its high success rate in regulatory decision-making, calculated by the ratio of enforcement decisions that are undisputed or upheld by the Court of Appeals to all administrative penalty cases annually filed, DPLR normally ‘errs on the side of caution.’ Upon discovering any loopholes in the assembled evidence provided by the enforcement team, the department will refuse to pursue cases, let alone consider punitive measures against accused polluters. As the leader of District H recalled, DPLR in his home bureau acts ‘conservatively’ to a fault. In order to pass muster with DPLR, his team must submit rock-solid evidence that firms’ operations unquestionably violated environmental laws and regulations (see: Liu, Van Rooij, & Lo, 2018). This implicit requirement is nonetheless difficult to achieve given that the collection of environmental evidence is circumstantial and requires a high degree of both professionalism and improvisation. Seeing that some big polluters get away with their violations scot-free, the interviewee lost all confidence in the enforcement credibility of his entire team.

Tightened accountability system vs. employee motivation

In order to motivate environmental officials to do their best work and make them understand that job stability comes at a price, China’s central government established a stringent accountability system for all levels of environmental authorities in 2013 (Brettell, 2013; Liu, Lo, Zhan, & Wang, 2015). In addition to continuously utilizing the target-based responsibility system to ensure that local administrations and cadres are motivated to achieve environmental missions due to the signing of performance-based contracts in which indicators surrounding environmental quality (i.e. binding environmental targets) take precedence over other governance measures, the strengthened accountability framework is bidirectional in nature, simultaneously embodying a bottom-up mechanism of bureaucratic oversight. Specifically, given that the top-down accountability approach is only capable of accounting for ‘macro’ influences, namely a jurisdiction’s overall pollution level rather than toxins caused by a particular firm (Lo et al., 2010), it is supplemented by a citizen advocacy component that compels local EPBs to remain attentive and react promptly to pollution from individual factories. Local environmental bureaus, for instance, are required to properly respond to and/or address citizens’ complaints and petitions within fifteen business days. Based on the official data provided in GEPB’s budget and final account reports, the number of citizen petitions received and processed by GEPB soared from 5,189 in 2011 to 37,994 in 2017.

In lieu of social organizations whose legitimacy remains dubious in China, the wider-ranging citizen petitioning system is considered ideal for aligning the interests of citizens with those of local environmental officials

– the former lodge complaints for the sake of their personal welfare, whereas the latter address these issues to avoid stains on their records. Nonetheless, holding local bureaucrats stringently and indiscriminately accountable for their behavior through regulatory action carries a heavy price. In their book, Miller and Whitford (2016) term the undesirable consequences resulting from the use of excessive rules and procedures the ‘control paradox.’ They believe that intensive monitoring and supervision signals distrust, alienates experienced workers, and serves merely to ‘clarify for employees the minimum efforts that would keep themselves from being fired’ (p. 140). To avoid falling into the trap of this paradox, the authors conclude that a suite of civil service safeguards should also be created to (1) discourage public employees from being myopic, and (2) convince public officials that they are indeed trusted and will not be scapegoated to ‘affix blame in the case of external hostility’ (p. 137). This idea is further contextualized by Ran (2017), who explores the primary reason that the Chinese government has insisted on adopting a highly decentralized environmental governance system over the years. She suggests that in order to preserve its positive public image, the national government has purposefully established a decentralized environmental administrative system so that any criticism can be easily directed at the local governments. More interestingly, this blame-avoidance behavior can be observed among intergovernmental relationships at the subnational level. In other words, government officials at each administrative rank assume the dual roles of blame-taker and blame-maker – accepting the blame from their immediate higher-level entities and transferring it to those in subordinate administrations. As a result, Ran (2017) alleges that local EPBs and their officials, given their most vulnerable position in the power structure, become ‘prominent targets of blame’ (p. 644). Due to the fact that they are unable to shift the blame downward through the administrative hierarchy, they instead turn to ‘blaming local residents and society’ (p. 646).

Indeed, problems with the control paradox, coupled with the attendant negative behavioral patterns predicted by Ran (2017), are mirrored in the interviewees’ obvious discontent with the current accountability system that requires them to respond to every single complaint or petition in a timely manner. From a technical perspective, to minimize the risk of being held personally accountable and shouldering the consequences, most of the interviewees indicated that their time, which should ideally be used to explore methods for preventing pollution, has been wasted on addressing citizens’ complaints, the majority of which are either inherently unsolvable in a short time or colored by ulterior motives (e.g. false allegations driven by ‘malignant’ competitions between firms). Additionally, from an emotional perspective, these enforcement team leaders view themselves as both ‘suitable’ scapegoats used by higher-level officials to deflect criticisms of regulatory underperformance and as ‘inconsequential’ punching bags upon which citizens can vent their anger. Interestingly, quite a few interviewees jokingly suggested that sliding by might be the best strategy for survival. While this response was perhaps hyperbole for comic effect, it seamlessly mirrors the paradoxical outcomes of the control dilemma – it is the lack, rather than the presence, of bureaucratic autonomy, that opens the gateway for laxity and stifles motivation. As indicated by the leader of District E:

District E: I think what citizens often lack is common sense. First, for industrial districts in which factories are concentrated, a certain stench will be generated for sure. If you choose to live near an industrial district, you must understand that your neighborhood can never be odorless. Second, emitting within certain legal limits doesn’t equate to zero emissions. Our enforcement team can only punish firms that emit beyond their granted legal limits. In other words, even if a firm is considered “a heavy polluter” in the eyes of citizens, we cannot possibly do anything if it complies with all the respective emission standards. However, when we explain our enforcement criteria to those citizens, they aren’t satisfied. They think we are either patronizing them or didn’t act promptly to catch polluting firms red-handed. We have begun to realize that it is inevitable that we will be blamed. The more we do, the more likely we will be reprimanded. In all honesty, we might be better off doing nothing at all!

Vertical integration vs. local cooperation

Vertical integration denotes the tactic through which local environmental administrations are held accountable solely to their higher-level departments. For example, the EPBs at the district level are no longer considered an integral department within their respective district governments; rather, they are perceived as dispatched agents of the EPB at the municipal level which have been given the power to decide the budgetary allocations and personnel assignments of all subordinate bureaus. The adoption of vertical integration in environmental systems,

which was officially instituted in Guangzhou in 2017,⁵ is expected to eliminate the undue influence of local governments on environmental protection at the grassroots level.

On the surface, liberating local EPBs from the jurisdiction of their respective territorial governments is justifiable. As elaborated by Ran (2013), the performance of local cadres are evaluated based on five following aspects with an implicit descending order of importance: (1) adherence to the Party's ideology, (2) economic development, (3) social security and stability maintenance, (4) dealings of environmental issues (including ecological civilization, energy conservation, and population control), and (5) 'development of education, science and technology, culture, health, and sports' (p. 23). As a corollary, most of the officials she interviewed 'favored economic development' and believed that 'they have to sacrifice the environment a little bit for economic development' (p. 33). This mentality, nonetheless, is unlikely to be uprooted by vertical integration, the pragmatic usefulness of which has already been contested both in a general sense and in the specific context of environmental protection. Given the increasing coordination and monitoring costs, Sabatier and Mazmanian (1989) indicate that organizational leaders could be chasing their tails by initiating hierarchical (vertical) integration. According to Van Rooij, Zhu, Na, and Qiliang (2017), 'adding a recentralized layer on top of a localized system adds to coordination problems' (p. 587). Particularly when these recentralization efforts are not well matched with sufficient resources,⁶ including 'adequate personnel allocations' (also see: Kostka & Nahm, 2017, p. 577), utilizing recentralization to overcome the deep-seated hurdles plaguing the current environmental governance system is tantamount to wishful thinking. On the contrary, when excused from fulfilling environmental protection responsibilities, local government officials are no longer likely to lend their strong support to EPBs, whose enforcement capacity will then be negatively impacted.

Not surprisingly, interviewees' views about vertical integration in this context were universally negative. The majority of team leaders considered this approach either meaningless – as local leaders already could not stress enough the importance of environmental governance, or counterproductive – as it tends to drive a wedge between local EPBs and their territorial governments.⁷ As vividly articulated by the leader of District K:

District K: The Environmental Protection Bureau currently serves as one of the integral departments of the district government. No matter how well or badly we behave, our bureau is still considered the government's own child. Sometimes we get scolded, but we know that we will not be abandoned. After all, under no circumstances will parents abandon their children. When the environmental protection system is vertically integrated, we will take orders solely from higher-level environmental institutions. Being structurally independent from our district government, we won't be perceived as a "child" by local government leaders anymore. We are outsiders. It is a no-brainer that parents lend support to their children more often than to outsiders. I am afraid that we will be implicitly sidelined by local administrators in the future.

More notably, a high percentage of interviewees expressed concerns that vertical integration would hinder their promotion prospects. In other words, the perceived unavailability of promotion-based incentives is what stands out as a potentially demoralizing, albeit unintended, consequence of vertical integration. According to the leader of District F, the entire Environmental Protection Bureau is already filled with countless rank-and-file members, although leaders can be counted on one hand. On this note, a vertically streamlined system tends to exacerbate co-workers' frustrations in that the number of budgeted leadership EPB positions will be further reduced at the district level. Particularly for junior members who consider their job on the enforcement team as a springboard that can eventually help them land on a bigger platform, vertical integration is likely to deal a permanent blow to their work motivation.⁸

Discussion and conclusion

In his frequently-referenced paper, *Performance Legitimacy and China's Political Adaptation Strategy*, Zhu (2011) explains the reasons why China has been peacefully governed by the Chinese Communist Party (CCP), a monopolistic force in which leaders have circumvented nationwide elections to assume and maintain political power, for the past 60 years. He points out that China's size alone precludes the use of terror and oppression to legitimize the CCP's leadership role in government. Instead, it is the 'performance-based strategy' that has enabled the CCP to establish and continuously consolidate its unparalleled authority. Specifically, by virtue of accomplishing a wide spectrum of governance goals that improve the living standards of the people,

the CCP has won over the hearts and minds of typical Chinese citizens. This resultant societal support has helped to ‘construct a constitutive perception that the government is doing things right’ (Zhu, 2011, p. 128), which in turn, justifies the CCP’s status. Unfortunately, due to the fact that citizens’ demands are constantly changing and rapid economic growth cannot be indefinitely sustained, Zhu subsequently states, ‘Performance legitimacy is very fragile’ (p. 139), as there is no room for error and it is maintained at the expense of increasing governance costs at the local level.

To a certain degree, my findings support Zhu’s argument. Chinese leaders are aware that bettering the environmental quality is an important governance task that has (1) not yet been fulfilled, and (2) caused widespread societal discontent. Based on these pressing concerns, the central government has taken steps in different areas. Vertical integration, for example, is designed to reinforce the authority of local EPBs by lessening their reliance on the respective jurisdictional governments. The adoption of the heavy-handed political accountability system, the ultimate goal of which is to ensure the answerability of local environmental administrations to citizens’ complaints and petitions, similarly exemplifies the government’s determination to garner social support and understanding. Unfortunately, this paper suggests that while state legitimacy might be temporarily enhanced through restructuring and by increasing the stringency of environmental management regimes, this comes at a heavy price for the employees. Vertical integration threatens the promotion prospects of street-level environmental workers and, in reality, the accountability regulations are considered nothing more than a blame-shifting⁹ and anger-venting mechanism. Future researchers may wish to study the extent to which the demoralization of environmental officials will provide a counterweight to China’s improvement of environmental performance in the long term.¹⁰

The contributions of this study are primarily threefold. First, utilizing qualitative methodologies, mainly in the form of in-depth, semi-structured interviews, I dug deep into the work-related beliefs, attitudes, behaviors, and reactions of leaders in environmental enforcement teams. The reader is thus provided with a highly contextualized compass to travel into mundane, but cumulatively consequential, problems surrounding current grassroots-level enforcement of environmental policies in China. In sum, the suboptimal enforcement can be mainly attributed to the local EPBs’ institutionally limited organizational capacity and to the understandably low morale of their in-house officials. Since street-level employees are ‘the key to successful implementation and that the top downers ignore them at their peril’ (DeLeon & DeLeon, 2002, p. 470), an appreciation for their situation and empathy with their frustration are indeed necessary for filling in the implementation gap that has bedeviled China for years. Additionally, I have made a first attempt to examine the inter-district differences across environmental enforcement teams in Guangzhou. Two main systematic disparities are found: (1) while enforcement teams in all districts are understaffed, the severity of this problem varies across districts. The top-performing team, widely acknowledged among interviewees, is exactly the one that suffers the least from the understaffing; (2) enforcement team leaders’ perception of media is directionally highly consistent with their understanding of government support for environmental protection. Leaders who hold a hostile attitude towards media are exactly those who perceive the government support as insincere, skin-deep, or instrumentalizing. Lastly, drawing on insights from classic models including implementation theory, control paradox, and principal-agent conflict, I have described the rationale behind the coping strategies utilized by the central administration to alleviate the ‘household’ challenges¹¹ confronted by local environmental enforcers, and more importantly, made sense of three resultant/anticipated dilemmas posed not only to enforcement team officials but also to the entire think-tank of institutional reformers. These dilemmas can be labeled as: (a) the unintended consequences associated with the (re)centralization of environmental authority, (b) the low employee morale as an outcome of the drastic expansion of political responsiveness and accountability, and (c) the weakened ability to credibly enforce regulations resulting from the complete separation of the investigation and decision-making units.

In the final analysis, it is worth noting that the issues presented throughout this paper are too complicated to be solved overnight.¹² In this regard, the usefulness of my study lies in the fact that correctly identifying and disclosing enforcement difficulties and reform dilemmas against the background of a variety of institutional and bureaucratic constraints is the only viable avenue for keeping central policymakers informed.¹³ Such disclosures, in theory, could also pique the interest of like-minded scholars who may come up with their own

theories about how to more effectively enforce local environmental regulations. Several thought-provoking pointers offered by the interviewees merit mentioning here. To begin with, compensation reforms must proceed at a rapid pace. In addition, environmental laws and regulations should be further revised to reduce their mutual inconsistencies and developed to cater to local conditions. According to Zhan et al. (2014), China's environmental regulations are oftentimes 'adopted without due consideration as to how they are going to be implemented at the local level' (pp. 24–25). Moreover, the authority and responsibilities of local EPBs must be clearly delineated. In other words, administrative overlap and duplication across public bureaucracies must be avoided at all costs. Finally, to prevent regulatory inaction, which poses dangers that are far-reaching yet not immediately apparent, fault-tolerant mechanisms must be established to provide individual environmental enforcers with breathing room.¹⁴ In a similar vein, a reasonable system for handling/filtering complainants ought to be imposed, which will ensure that a 'sledgehammer,' namely precious enforcement resources, will not be used to crack a walnut.

In conclusion, China's top-level leadership unwaveringly believes that satisfactory governmental performance guarantees legitimacy. In order to ensure that their authority is not challenged in this increasingly globalized and turbulent era, China's central government leaders (dominated by the CCP in the current party-state polity) prioritize visible performance over other aspects of governance and 'communicate to the Chinese public that the central government is doing everything possible to realize announced goals' (Kostka, 2016, p. 64). Externally, committing itself to 'openness,' China has become the world's largest trade and manufacturing center. Internally, the state leadership has pledged to forge an accountable, transparent, and competent administrative system (Seligsohn, Liu, & Zhang, 2018), evidenced by a variety of governance reforms occurring across various domains and policy arenas. Yet, as demonstrated in this paper, the pursuit of utilitarian legitimacy is doomed to be rocky. At least in the context of environmental protection, the compromised enforcement credibility, the decline of employee morale, and the possible estrangement between local EPBs and their respective territorial governments all provide a detailed look into the inherent vulnerability of the prevailing governmental logic that equates visible, if not immediate, performance with ruling legitimacy. While the country's miraculous economic growth and rapidly transforming socioeconomic landscapes necessitate innovative governance approaches, this paper hopes to underscore the importance of moving forward meticulously and incrementally – i.e. with the aid of supporting institutions and sufficient human resources.

Notes

1. The full name is the environmental law enforcement team (*Huanjing Zhifa Dadui*). These law enforcement teams used to be independent law enforcement bodies, but were merged into and became internal divisions of their respective district-level EPBs in 2012.
2. See supplementary note 1 (N1) to further understand the reality and consequences of understaffing.
3. While a separation between investigation and enforcement powers is common practice in law enforcement agencies in Western countries, it was not widely utilized in China's local environmental protection bureaus until 2016.
4. See supplementary note 2 (N2) that justifies the applicability of the principal-agent model to China's environmental management.
5. Piloted in a number of selected cities over the past three years in accordance with the government initiative, titled *Guiding Opinions on the Pilot Reform of Vertical Management System for Environmental Protection Departments below the Provincial Level Concerning Environmental Monitoring, Supervision and Law Enforcement*, co-endorsed by the General Offices of the CPC Central Committee and the State Council in 2016, vertical integration is slated to be adopted nationwide this year (2019).
6. According to Wong and Karplus (2017), in quest of effective approaches to combating air pollution, 'Beijing may be less efficient in deploying funds where they are needed, relative to governments at the provincial and lower levels' (p. 681).
7. See supplementary note 3 (N3) to further comprehend the necessity of collaboration between local EPBs and territorial government agencies.
8. See supplementary note 4 (N4) to fully grasp the gist of China's lack of readiness for vertical integration in its environmental governance system.
9. As similarly observed by Ran (2017), 'when environmental policies fail, local governments and officials are blamed for local protectionism and unfaithful implementation' (p. 16) so that the positive image of the central government's strong environmental commitment can stay untainted.

10. Study limitations and future directions are detailed in supplementary note 5 (N5).
11. These challenges are considered 'household' primarily because they have been repeatedly mentioned in the existing literature. What makes my findings interesting is not how novel those issues are, but why they have been left unaddressed for so long in the face of the central government's growing commitment to environmental protection.
12. Scholars led by Van Rooij et al. (2017) pessimistically contend that these problems will always be around unless 'the fundamental conflict of interest between pollution control and economic growth' (p. 18) can be overcome.
13. See supplementary note 6 (N6) that ponders on the seriousness of the identified dilemmas in the face of considerable improvements in environmental performance.
14. The importance of developing fault-tolerant mechanisms is further elucidated in supplementary note 7 (N7).

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