VOICES OF PROTEST AGAINST INDUSTRIAL POLLUTION IN HUBEI, 1970S-1980S
CHINA

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ABSTRACT

This article examines local official records to find voices of protest against industrial pollution in Hubei, China, during its early reform era of the 1970s-1980s. Archival evidence, from a serial of unpublished official documents of Hubei, indicates that to some extent local officers responded to citizens’ petitions against two main forms of industrial pollution: air pollution and soil pollution. Air pollution mostly affected urban residents but elicited seemingly more contention. Soil pollution got comparatively less exposure but caused more direct damage to impacted peasants. Both rural and urban victims of industrial pollution projected their own voices of protest typically to co-signed group-appeal or anonymous whistle-blowing letters. Protesting voices for more pollution solution negotiation were communicated in public or semi-public venues as well as local investigation reports. The findings help to explain how local environmental governance evolved through increasing public awareness at subnational levels in China’s early reform years.

KEYWORDS
China, Hubei; Rural-Urban Pollution; Local Protest Voices; Environmental Governance.

**Introduction**

Some studies have expressed pessimism about the progress of Environmental Protection (EP) in China. However, Richard Edmonds argues that grounds still exist for optimism since EP awareness and investment has both risen with greater openness in China, especially in recent years; overall, China presents a progressive path with multiple venues for better EP governance. Judith Shapiro also notes that in China, the governments and the public often respond differently to EP challenges; yet, she holds out hope for this “state-led” environmentalism that features state control engaging public participation by commoners. Despite local offices in China taking most of daily EP work, few studies have yet addressed how these EP offices responded to local voices of protest against industrial pollution from the early reform eras of China. We also need further understanding on how those local protesting voices evolved in public or

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semi-public discourses on EP governance issues in China back in the 1970s-1980s, while difficulties of subnational EP governance are still common in China.4

This paper presents archival evidence on how local voices protesting against industrial pollution interacted first with urban/rural officials in Hubei, one of China’s inland provinces struggling with industrial waste emission. A few local pollution reports in Hubei can be traced back even to the 1960s, providing hints of how local offices initially responded to public concerns about EP governance failures. There was an increase in the filing of pollution cases in cities and counties in the 1970s. Despite the limitation or defensive tones of these archives, one can still notice that many EP officials in Hubei had referred scores of commoners' protesting voices assiduously into the mid-1980s. Those barely explored records help to interpret how official or quasi-official responses in China during the 1970s-1980s, especially from China’s local officials at provincial and sub-provincial levels, dealt with voices of protest against pollution.5 Capturing those “insignificant” voices in these EP official reports also helps to find connecting dots within China’s environmental trajectory.

The following sections largely apply a case-study approach and focus, to some extent, on local “biographical” stories. 6 The province of Hubei is selected as the study subject for its significance due to a variety of aspects. Firstly, Hubei has a notable place


5. Such a locally oriented perspective is also advocated from the literature review by Bao, Maohong. "Environmental History in China." Environment and History 10, no. 4 (2004): 475-99.

in modern China’s early industrialization experiments; this position has been consolidated by the state authority since 1949. Secondly, Hubei is still a traditionally agricultural province, even in the present. As a typical land-locked province, Hubei has long served as a regional administrative center of Hubei and Hunan from the late imperial eras of China.\(^7\) Comparatively speaking, Hubei’s overall political-economic status is average in the national map.\(^8\) Nonetheless, it holds a historically notable status in China’s contemporary evolutions, especially for its transitional path from a largely rural-agricultural society towards a more urban and industrializing society. Wuhan, the provincial capital, has been a well-known regional hub of commerce, education, administration, and manufacturing for many decades; we ought to take its metropolitan status into account when examining local industrial pollution. Thanks to Wuhan’s strategic position in China, Hubei has probably received more political attention from Beijing than many provinces have received.\(^9\)

Our primary sources include the Hubei Provincial Archive and the Wuhan Municipal Archive. The Hubei Provincial Archive (HPA) and the Wuhan Municipal Archive (WMA) have declassified piles of pollution investigation reports dating back to the mid-1980s.\(^10\) Regarding the records of air pollution, this article focuses on three urban parts of Wuhan: Hankou traditionally serves the commercial and municipal administrative zone; Wuchang mostly features its research and higher-education sector;


\(^{8}\) Refer to Table 2-6 and 3-9, the Chinese Yearbook, 2017, by the Chinese Bureau of Statistics. In terms of the size of its population and economy, Hubei is 9th and 7th in the provincial rankings.


\(^{10}\) Most archival records have been re-catalogued with the in-house indexes respectively. Some are selectively scanned and accessible at their reading-room terminals with librarian assistance.
and lastly, Qingshan was developed as the iron-steel manufacturing base in the national industrial map of China, and along with Wuchang erected newer factories. While local air pollution was more obvious in Wuhan, soil pollution created more direct threats to villagers. At first glance, it looks as if soil pollution in rural areas was more difficult to detect than air pollution, in which yellow-black smoke-dust was billowing from tall smokestacks. This article selects two counties as the local cases of soil pollution caused by industrial pollution: Daye, on the south side of the Yangzi River, and Dawu, on the north side of Wuhan. In comparison, Daye is proud of its industrial legacy of China from the late 19th century, while Dawu celebrates more of its revolutionary tradition with the CCP from the early 20th century. For more details of geographical reference, see Figure 1: the map of Hubei.

**Air Pollution in the Urban Space of Wuhan**

Increasingly by the late 1970s, the officials of the Hubei Provincial Bureau of Environmental Protection (HEP) had recorded their growing concern about airborne pollution in their regular reports about local factory dust emission. Many HEP investigations frequently cited commoners’ petitions protesting against air pollution. In December 1979, Chen Pixian, the departing Secretary of the Hubei Provincial Committee of the CCP, publicly addressed the seriousness of pollution in Hubei at a mass assembly. A few weeks later, the provincial administration promptly issued a “Number 1” annual directive about raising more public EP awareness with effective

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11. An internal report on urban pollution in six major industrial cities in Hubei was initially classified as “Secret.” HPA, Efa [1980] 56, July 7, 1980, and re-catalogued as SZ1-8-209-005 by the HPA. Efa means Hubei Provincial Government Issuance. E is the abbreviation of Hubei. Efa is short for Hubei [Provincial Government] Issuance. These archival indexes present the same formats as follows.
governance for local industrial pollution. A passage of the conference memo manifests the extent and scope of local pollution in capturing official attention:

The EP task must be stressed, especially itemized into the [provincial] plan, while policy measures must be sincerely carried out. Units that have already installed pollution-control devices must not abandon such devices because of operational difficulties. Units that do not yet own such devices must accelerate the pace of their installation. Units that have caused serious pollution must be changed within a definite timeframe. The central government has issued the EP Law. It must be strictly and thoroughly implemented; to do otherwise is illegal.

Citing HEP officers’ reports, Chen made particular mention of some urban cases of air pollution, including Hankou, Qingshan, and Huangshi back to the late 1960s. The external pressure looked significant, especially with this information source as cited: in June 1979, a field survey was filed by three American environmental scientists, invited by the central government, recording worrisome levels of urban air-quality deterioration in Beijing, Shanghai, Guangzhou, and Wuhan. The HEP cited the survey as indisputable evidence of local urban air pollution. The survey’s contents, circulated first within provincial government branches, had probably reached lower-level offices via internal memos or formal directives.

12. HPA, Efa [1980]1, the directive; No. 1 provincial government announcement, January 1980. As shown here, all original catalogues have this format: Institution Issuer [Year] Issue, as hereafter used.

13. HPA, SZH-422, pp 21-29, the speech transcript by Chen Pixian, December 12, 1979, who retired the Secretary of the CCP Provincial Committee before taking the Chair of the Provincial People’s Consultative Congress. The HPA takes another filing format, like SZH-422, for its own catalogue.

14. HPA, Ege [1970] 57, April 15, 1970; re-catalogued as SZ-139-6-0628 by the HPA.

15. HPA, SZ-151-1-2, the memo on urban air pollution by the American scientists, January 25, 1980.
Earlier official responses to urban air pollution had first blamed the lack of economic foresight. In 1973, a central government report admitted mistakes in its early manufacturing design: some signs of “myopia” for industrial planning. Some local officers quickly responded that serious issues of waste emission be raised to a “politicalized” level and be firstly attended to by national authorities.\textsuperscript{16} In 1977, another report in Hubei was internally circulated, urging that the central government should invest more to contain pollution.\textsuperscript{17} In Wuhan, official attention to air pollution caused by industrial emission led to more inquiry coverage about dust-control investment allocation to city-run plants.\textsuperscript{18} Some EP policy impacts on local economies also clearly caught the attention of the HEP and its subordinate offices.\textsuperscript{19} Overall, administrative measures had already reached their limits, as indicated in: Hankou, Wuchang, and Qingshan.

Hankou City

In Hankou were three of Wuhan’s six industrial zones and most of its city-run industrial or commercial firms. In 1979, a list of 37 firms, operating mostly in Hankou, received warnings of “immediate” operation-halt for air-dust pollution.\textsuperscript{20} Ten factories were

\textsuperscript{17} HPA, SZ-118-4-678, the reference report on overseas EP education, March 15, 1978.
\textsuperscript{19} WMA, the overview investigation report on environmental pollution of Wuhan was published jointly by the Wuhan Municipal EP Bureau and the HEP, un-catalogued, December 1978.
dubbed as the “Ten Chimneys.”  

An extended black-list included pharmaceutical, chemical-production, and textile sectors, plus five military logistics plants and five city hotels. The warning of operation-halt sounded serious. However, removing these polluters from Hankou was prohibitively expensive, with too many stakes connected to local employment and fiscal revenue. Thus, initially fines got imposed upon the entities, and subsequently, waste-processing fees were levied; however, there were few figures of fines or fees in the declassified reports. Stressing “necessary” reimbursement, these fines were probably merely token amounts. Neither any more details of punishment of halting operation were revealed, nor were the names of individual protesters cited in the inquiry reports; nonetheless, one can still surmise some ideas about how official responses to urban appealers against air pollution progressed. Here are a few lines from the pollution investigation on the Hankou's Number 2 (also called Jiu'an or “Long Safety”) Pharmaceutical Factory:

For years, the masses have repeatedly protested against and extremely detested the serious pollution caused by Wuhan's Number 2 Pharmaceutical Factory. Some protesters give the factory a nickname, "Inflictor Mill," and recite: ‘Jiu'an [Long Safety], Jiu'an, you are safe, [yet] we are not.’ Many residents, working for governmental branches, hospitals, schools, factories, and street districts, have petitioned officials of the municipal or provincial governments, even the central government. Some protestors posted dazibao [Big-Character-Poster] onto the factory front-gates, and directly scolded the factory managers in person.”


Despite the large number of air pollution cases in Hankou, this protesting case got more public exposure than other similar pollution cases filed in those directives or internal memos. A combined report that had twelve large city-owned plants was re-investigated in mid-1979 by the Wuhan EP Bureau. Ceaseless industrial dust got easily connected to respiratory disease and other health concerns. The majority of urban air pollution cases came from Hankou, but no valid solutions were found. A few reports proposed more internal recycling of dust-waste by plants. However, acts of voluntary control seemed far beyond the factories’ capabilities, both in terms of investment and of trained personnel. City-run plant managers and local offices in Wuhan recurrently requested renewed or new investment targeting air pollution. By the mid-1980s, Wuhan had seemingly already prioritized the control of airborne industrial emission mostly obvious in Hankou.

These reports of air-pollution cases in Hankou provide background information for more specific cases in the adjacent areas of Wuchang and Qingshan. A scattering of investment figures appear in the early declassified pollution files. Based on this urban dataset compiled from 1985 to 1998, the annual total number of pollution-control projects jumped from 173 in 1985 to their peak of 494 in 1987; the level remained right above 400 annually until 1990, and then it gradually declined to 313 in 1991, 248 in 1993, 173 in 1995, and 52 in 1997, before climbing back to 132 in 1998. The total annual investment peaked in 1991 and declined thereafter. Among five categories of pollution-control projects, industrial effluent, dust emission, solid waste, noise, and

23. WMA, an update on 12 urban air pollution cases at Wuhan, in the periodical Wuhan Huanbao Jiaobao, issue 12, July 28, 1979, un-catalogued. The Wugang Group was listed as a first example, followed by the Wuhan Heavy Machinery Group also managed directly by the central agencies.


25. HPA, the replies to investment requests, July 31, 1978, re-catalogued as SZ43-05-1242-00 by HPA.
others, investment for airborne and effluent pollution control took turns occupying the
top place in Wuhan from 1985 to 1998. The annual investment figures, ranging from the
lowest growth rate (based on the previous year) of 57.92 percent in 1986-1987 to the
highest rate of 62.48 percent in 1990-1991, suggest that Wuhan significantly increased
its municipal pollution control activities from the mid-1980s. We need more data to
answer if the decline in annual total pollution-control investment during the late 1990s
was caused by its channelling into a smaller number of existing or newly-approved
projects or reflected adjustment or changes to statistical standards. The situation is
complicated by a lack of available data on specific projects.

Unsurprisingly, economic return from waste-control investment turned out to be
mostly inadequate to sustain the air-pollution containment devices autonomously
managed by those factories. Alternative policy measures seemed necessary when
increasing pressure came from urban residents, including both factory and civil
workers. This pressure would be articulated most in the form of appeal letters, which
were often cited indirectly. For example, the HEP reports frequently used phrases such
as “qunzhong husheng riyi gaozhang (群众呼声日益高涨)” or “the voices from the mass
are rising every day.” Occasionnally, to add more weight in their reports, officials chose
a stronger phrase: “qunzhong yichang jifeng (群众异常激愤),” or “the masses are
extraordinarily indignant.” Such short phrases would reflect sympathy by EP officers
who directly dealt with petitions for immediate intervention.27 Relaying those
petitioners’ voices urging the containment of waste emission from local industrial
production, the EP officers had awkwardly played an intermediary role in negotiating
conflicts of interest.

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26 HPA, SZH-422, pp. 35–6, the inquiry reports collection, re-compiled by the HEP, October 1984.
Wuchang City

In Wuchang, crowded with education-research institutes, two air-pollution cases stood out in the official accounts, both of them associated closely with local literati. The first case came in 1978 from the Shizhishan (Lion Hill) district, involving the Huazhong Agricultural University and the Hubei Academy of Agricultural Sciences. Both institutes had settled in the southern periphery of Wuchang. As a legacy of Zhang Zhidong (1837–1906), the Governor-General of Huguang (Hubei and Hunan), both institutes originated from an experimental state-owned farm; their influential alumni mostly worked at local agricultural administrations. In 1978, the university and the academy jointly filed a formal complaint and requested mediation of the EP offices, accusing the Shizhishan Chemical Factory of continually emitting dust into their communities, as well as over the farmland and fisheries of the surrounding villages.\(^\text{28}\) However, no follow-up reports were found in the HPA or WMA resources, or probably even filed.

About eight years later, the second case pertaining to air pollution in Wuchang was filed by some “unnamed” staff and faculty members of the Zhongnan University of Law and Economics. This institute was established in 1950, through a mandatory merger of the CCP training school for both civil and military officers in the South-Central Military Administrative Region with a group of departments of social sciences and humanities of local universities established before 1949. Zhongnan’s alumni worked mostly in local government branches and public organizations, including many state-owned plants.\(^\text{29}\) Its next-door neighbors include the Huazhong University of Agriculture, the Wuhan Textile University, and the South-Central

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\(^{28}\) HPA, SZ128-1-579, March 16, 1976; also see SZ-128-1-539, June 7, 1978, the local lake pollution reports, re-catalogued by the HPA.

\(^{29}\) The Zhongnan University of Law and Economics was disbanded from 1969 to 1971, while its main assets were re-assigned to the Hubei Daily. In 1984, it spun off the Zhongnan College of Law. Both schools were merged back into the current one in 2000.
University for Nationalities, all surrounding the South Lake area. Evidently, air-dust pollution to the campuses was caused by emission of fluorine dust from a factory owned by the Wuhan Institute of Chemical-Engineering Research in the Qianjia Street district of Wuchang.

In August 1986, a public appeal letter was jointly signed by another educational institute the No.1 Middle High School affiliated with the Huazhong Normal University. An abstract of the appeal letter delivered enormous resentment; an “emotional” accusation cited statistics of fatal diseases claiming to be related to fluorine-dust emission from the factory. The letter cited a list of recent deaths, evidently all directly caused by cancer, including a total of 53 staff members: 11 of these members worked for the nationally reputed high school, and the remaining 42 victims worked for the Zhongnan University of Economics and Law. The letter stated that “astonished” people witnessed how tree leaves on two campuses and nearby residential districts had turned yellow from dust-smoke, while a wide range of flora had withered or died. The accusatory letter was supported by two sets of investigative reports from the Wuhan Institute of Plant Science and the HEP monitoring station: the residue levels of fluorine elements found in pine trees on both campuses were about double the normal standard. More details appearing in the monitoring report are quoted below:

Since July 2 this year [1986], several faculty/staff members of the Zhongnan University of Finance and Economics have repeatedly appealed to the governmental agencies assumingly responsible; yet our requests have not been appropriately addressed. Now some staff members have a more imperative appeal, protesting their right as citizens to public health. They have urgently demanded that government units with accountability strictly apply the EP law to

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30. The cadre training institute was renamed as Hubei University in 1978; its main campus, in a crowded district of the old town of Wuchang, was not returned completely until the mid-1980s.

31. HPA, an inquiry report to the appeal letter, re-catalogued as SZ1-9-880-004, September 6, 1986.
respond immediately to environmental pollution caused by the Wuhan Institute of Chemical Engineering Research, for the sake of quickly resolving an imperative issue of public health as reported by this large group of teaching staff members.32

This written appeal sounds noteworthy in the HEP reports, and these two cases of protesting air pollution have similar background elements. The reports for the second case cited more detailed description. Only a few appeal letter contexts, such as the one above, were directly cited in the HEP reports; most letters, marginally recapped in short sentences in these reports, were rarely archived. Yet, readers could still detect nuanced responses to these semi-official opinions. Compared to other protesting cases, the latter petition by the faculty members resulted in a certain degree of success, probably because of the rising status of literati in China during its early reform eras. The accused factory was ordered to suspend all operation. After installing dust-control equipment, the factory promised to scale back output of its hazardous product after the delivery of its already ordered fluorine-product.

The above two cases in Wuchang help to depict the opinions of local literati in the public sphere or space.33 In most of these local cases, the HEP received information in the form of what they formally called “gongmin jubao” (公民举报) or “shimin jubao” (市民举报) that we may roughly translate into “citizens” or “city-residents' reports” or “anonymous tip-offs”. The inquiry reports filed by local officials would typically reveal only minimal information of individual informers. Most local official reports for pollution-investigation had also somehow displayed an approving attitude to encourage pollution exposure. While local EP offices had struggled with under-funding and

32. HPA, pp. 34–6, the follow-up inquiry report, SZ1-9-880-003, August 4, 1986, has also noted that the investigation copy was printed, relayed, and referred to the university’s CCP commission.

under-staffing, the above better profiled cases of protest via written appeal letter against urban air pollution can also demonstrate how the HEP sought to gain all the support it could from other local organizations. Pollution incidents were filed with even greater urgency in the districts of high manufacturing density such as the next case of Qingshan, and the locals demonstrated more escalated levels of impatience and frustration.

**Qingshan City**

This study finds another high-profile air-pollution case at Qingshan, where voices of protest also peaked in the late 1970s. As was typical, the reports rarely mentioned any names of victims or reporters, but in this regard, they probably followed bureaucratic protocol. The EP officers’ approach of indirectly citing voices of protest acted more like a diligent routine for the job of widely circulating the appeal for pollution damage. Despite an absence of petitioners’ names, however, the reports show that the HEP and its deputy officials cooperatively handled most cases. This pattern was manifested in an early air-pollution case when a group of workers disseminated a public appeal letter in September 1979:

> Recently [in June 1979], 99 citizens from Qingshan, Wuhan, have co-signed a public petition letter, requesting investigation of serious pollution by the Wuhan Qingshan Sulfuric Acid Factory. We [HEP officials] have accompanied the directors of the Hubei Provincial Bureau of Petroleum and Chemical Products to conduct another joint field investigation and more negotiation, and we plan to take more committed measures to fully resolve the factory dust emission problems.\(^{34}\)

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\(^{34}\) HPA, Egehuan [79]33, July 31, 1979. An internal memo for the early incidents in Qingshang
This protest letter expressed frustration regarding the limited measures that had been put in place to control airborne emission by the Wuhan Qingshan Sulfuric Acid Factory in the Wugang Group. More interpretation can be called for the figure of 99 co-signatures: 99 sounds significant enough to get attention but also subtle enough not to get translated into an act of mass protest. In the Chinese cultural context, the figure 9 implies "many"; two 9s deliver a double sense of “many”. This public letter stated that the co-signers were planning to appeal to the Qingshan district court. Another public letter, probably by the same group of petitioners, was addressed directly to Li Renzi, the First Secretary of the Wuhan Municipal Committee of the CCP. Municipal and provincial authorities quickly responded to calm down the protest. Claiming they would organize strikes in schools and factories otherwise, a few protestors attempted but failed to enter the factory doors, which had already been locked to avoid head-on conflicts. The HEP stepped up its communication with municipal districts and local industrial bureaus to de-escalate the situation. Funding arrived to finance new pollution-control projects, including some new dust-collecting devices and a taller chimney. Expectedly, the HEP follow-up reports about this episode omitted details of strikes; yet, they confirmed more financial assistance for equipment upgrade. Production was suspended for closed-door inquiries. However, the Wugang Group's overall production was never interrupted.

Among the co-signers of the above open-petition letters, besides factory workers, some students and engineers/teachers of the Wuhan Institutes of Iron and Steel had also resourcefully played an active role in bringing air-pollution problems to public attention. According to the HEP internal circular, some local students or staff informed a group of foreign engineers who had been invited to provide technical training for the machinery imported by the Wugang Group. The visiting specialists also

35. HPA, Efa [1980] 61, July 18, 1980; re-catalogued as SZ1-8-209-006. These follow-up reports also presented no specific pollution details but sufficient evidence for inadequate investment.

voluntarily took pictures of evidence of rampant air pollution. While local officers warned that such photography would undoubtedly create a seriously negative image to outsiders, the HEP quickly issued a sanction to halt operations. Few details were further filed, but this case evidently received full attention before the HEP had the case fully closed. The HEP officers invited senior officers of the Provincial Bureau of Oil and Chemical Industry to an on-site investigation and more talks on governance difficulties faced by local EP officers. Spontaneous acts of exposing pollution indicated rising EP awareness. The petition letters served also as an increasingly regularized means by which local EP offices gained public support and justification. Another cause probably also existed for the anxious local workers/residents to procure more resources from local authorities: air pollution occurred more visibly in industrial zones, which were usually adjacent to residential districts.

Compared to Hankou's pride in its commercial traditions and Wuchang's appreciation of its intelligent influence, Qingshang was established with a legacy of newer heavy-industry. The solution packages of Qingshang in fighting against air pollution were seemingly more technologically oriented. Dust-emission appeared to be framed more in terms of technological upgrading or processing benefit-cost and trade-off considerations. All the solution proposals required continual investment. Yet, the existing dust-containment equipment with all the requisite additional resources would probably create no immediate returns but only more follow-up investment and expensive maintenance. Despite open criticism, no plants were subject to any effective sanction. Moreover, all of the above cases in the three borough-cities of Wuhan evoke a sense of cynicism: once the plants got officially labelled as polluters, their managers would reasonably expect an expansion of the investment budget usually allotted for technological upgrade. One can imagine the sense of frustration and futility experienced by local EP officials because those state-owned plants and their supervisors would be reluctant to fully enforce EP regulations, plausibly fearing the effect on production and revenue flows.
Soil Pollution in the Rural Areas of Hubei

It seems that Hubei’s urban EP officers made certain efforts to defuse public protest against air pollution in its cities. Would the same story also apply to the local cases of soil pollution in the counties? The answer is yes. County EP officials worried about how to relay rural voices of protest against industrial pollution, usually within a contained scale, from the formal appeal letters of pollution victims to the ears of decision-makers. Despite frequent complaining about meagre resources to their superiors, some EP officers somehow still made impressive efforts to ensure that those voices could reach higher-ranking officers. In 1974, the topic of urban pollution became the focus in the first policy blueprint issued by the National Leadership Office of Environmental Protection, whose report proposed priority areas for the EP policy. The critical domains summarized in this policy initiative report included soil contamination and staple-food security all directly related to rural welfare.37 Local county offices would well realise the level of seriousness resulting from cropland contamination, as reflected in those directives from higher-level offices.38 These county EP officers had also largely played the role of arbitrators between an extended group of industrial pollution complainants and offenders who claimed either innocence or only partial responsibility. Nonetheless, the similar administrative protocols were applied to those soil-pollution cases: first, administrative warning of production halt to the offenders; then, financial reparation to the pollution victims; and finally, a token clean-up of the land damage.

Two cases of soil pollution presented below in Daye County and Dawu County can particularly reveal such effort of those local county EP officers. Many HEP reports described soil contamination being connected to toxic chemicals or heavy metals in a

37. HPA, the memo of key points planning for EP, December 15, 1974, SZH-422, pp 3-8.
wide range of rural areas. Many inquiry reports had clearly stated or denoted that those
being accused as responsible for dumping effluent or solid waste were perfectly aware
of the consequences of their actions. Some indulged such behaviors in the hope of not
going caught. Less noticeable than air pollution, soil pollution impacted a more
isolated area and probably created much more long-term impacts with more
irreversible damage on rural communities. Some local voices exposed such activities to
public outcry. These two cases of soil pollution in Hubei bluntly reveal conflicts of
economic interest, particularly between the manufacturing and agricultural sectors.

**Daye County**

Daye County is proud of its mining legacy, but this industrial glory had faded by the late
1970s after the exhaustion of its iron-ore reserve. The rich history of the Daye Mining
Company can be traced back to the first and the largest mining-iron-steel syndicate in
China: the Hanyeping Company. In China’s early large-scale industrial experiments
during the late 19th century, the Daye Mining Company was the Hanyeping Company's
iron-ore supply base. Bordered by the ancient city of Ezhou, the county’s administrative
area was largely unchanged on the map. However, the recurrent shifts of its
administrative status would imply a complicated story. In different eras after 1949, the
constituency of Daye was acquisitioned by Wuchang and four surrounding
prefecture-level cities: Xiaogan, Xianlin, Huanggang, and Huangshi. This arbitrarily
assigned county-city status was confusing, before Daye was reinstated as a city in 1994
and onwards.39 In China, county status usually implies an economic and administrative
focus on agricultural production. Urban status normally indicates more of an emphasis
on industrial output, generally measured more in quantitative rather than qualitative
terms dating back to the 1970s-1980s.

39. HPA, pp. 83–85, the Huangshi Gazetteer; also see April 13, 2009, the Chinese Youth Daily,
Beijing.
Evidently, in Daye, economic conflicts emerged between industrial sectors and rural areas. Local villagers incurred huge damages through soil pollution, roughly at the same time that some early directives were issued by provincial authorities to maintain the existing fisheries, since the local county authorities had reflected growing concerns about industrial pollution’s damages to local areas. The mining sector created massive extraction waste, while the iron-steel mills also created large quantities of debris. Huangshi city had reimbursed these fishing-farming villages of Daye for damages to crops and fisheries caused by mining and iron-mill operations.

The new Governor of Hubei, Han Ningfu, newly appointed in 1980, was shocked by the seriousness of pollution in Daye; a roughly estimated 40 percent of its rice production was contaminated by a variety of heavy metal elements, particularly cadmium. The HEP reports explicitly compared this alarming information to the case of Itai-Itai disease in Japan in the 1960s, which was caused by eating rice grown in cadmium-laden rice-paddy soil near the mining sites.

The above HEP memo for the provincial EP symposium shows that in 1980 the Daye County officers openly apologized for failing to protect the land. Despite appearing deeply stirred by the reports from officials at lower levels, the governor, as the conference chairman, did not seem prepared to accept these shocking statistical figures, which had been barely reported in other records. His doubt about the accuracy of statistical analysis was clearly documented. At another internal meeting when he

42. HPA, the internal speech memo for Han Ningfu, the new Secretary of the Provincial CCP Committee, January, 28 1980. The in-house reference number is indexed also into SZH-422. Also, see Ezhenfa [1981]33, March 13, 1981. Another memo re-addressed the same facts by the former Secretary of the Hubei Provincial CCP Committee, Chen Pixian; also Efa [1980]1, December 19, 1979.
43. Refer to Simon Avenell. “From fearsome pollution to Fukushima: Environmental activism and the nuclear blind spot in contemporary Japan.” Environmental History 17, no. 2 (2012): 244–76.
inquired about whether some figures might be subject to speculation or fabrication, his suspicion was immediately refuted by the Daye County officials sitting in the back rows, who bluntly referred to a set of early analytical results collected by the hydro-ecology experts of the HEP monitoring stations in Wuhan and Huangshi. Some county officers continued to complain that superintendent officers did little to help but just demanded more paperwork. Requests for more intervention were relayed to Huangshi city.

Another series of directives cascaded down within the bureaucratic hierarchy. One memo stated,

> In the past several years, Hubei has done much work to regulate industrial waste. However, in some areas, industrial pollution remains serious. The masses have strongly appealed. There will be no change for stressing the EP goals within the national economy adjustment agenda. All the CCP committees and administrative units should treat the EP work as critical and focus closely on carrying it out well.

The memo suggests some growing requests for better EP governance. According to the texts quoted, some Daye County officials openly warned that public demonstrations would be imminent, with rumours of blocking factory doors, while anxieties about consuming toxic rice spread widely among villages. Impressively, a few county-officer representatives, names all unsurprisingly unknown, kept interrupting the governor's opening speech to the assembled office-participants. The governor shifted the dialogue towards the pollution solution for Daye. In the end, he ordered that all the contaminated rice be used as factory material, not as subsistence food. An investigation was re-opened with a follow-up inquiry report by the Vice Governor, Tian Ying. The principle of “whoever pollutes must clean up” was repeatedly emphasized

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46. Also refer to the supplementary memo of the speech on January 28, 1980, SZH-422, pp 71-78.
in the Daye reports, as presumably claimed to be similarly applied in Hubei’s other pollution cases.

Some details surfaced in the related memos: the contaminated rice paddies were adjacent to the sewage ditches owned by the Daye Special Steel Company; rice loss extended to tens of thousands of villagers in nearby areas; to procure food supplies from outside, local governments footed the entire bill; and the affected area amounted to twenty thousand mu in total. Many central officials condemned the crisis using harsh words, including a statement by Li Xiannian (1909-1992), a Hubei native who recently became the Vice Chairman of the CCP, the President of the People’s Republic of China (1983-1988), and then the Chairman of the Chinese People’s Political Consultative Conference until 1992. Li demanded, “Shut down the polluting plants!” However, he added the condition: “… if all else fails.” Nothing failed as seriously as the Daye case. Surface soil pollution was diluted by irrigation water deliberately set up by local authorities, with the help of abundant seasonal rainfall. Villagers struggled to get safe drinking water; the county paid all the costs for freshwater transfer by tanker trucks and the construction of new running-water treatment facilities. Expressing sympathy with mortification and powerlessness, the Daye officers kept on complaining about pollution to the higher offices, while the HEP circulated scores of recommendations and stricter measures to prevent further incidents.

Dawu County

Within the prefectural jurisdiction of Xiaogan, Dawu’s local topography is hilly. A substantial portion of its arable land is in the hillside terraces containing thin layers of

47. Ibid; one mu is equivalent to 666.7 square meters, or nearly one sixth of an acre.
49. HPA, the transcript of internal talk by Vice Governor Tian Ying, April 11, 1982, SZH-422, pp 82-91.
soil. Dawu enjoys a renowned status stemming from its revolutionary tradition, a legacy celebrated in the local contemporary history. Dozens of natives of Dawu were well-known generals in the People’s Liberation Army or senior party-leaders. Designated as one of a few “cradles of the revolution,” the county enjoys its reputation of revolutionary tradition, a legacy that has been celebrated in both provincial and national narratives by the CCP. Unlike Hubei’s rice-producing counties such as Daye, Dawu relied more on crops of corn, yams, potatoes, peanuts, and tobacco. Its thin soil was frequently afflicted by, floods, landslides, drought, hail, windstorms, and plagues of locusts. Industrial activity was almost statistically negligible before the local electrical grid extended into Dawu in the late-1960s, when local authorities discovered rich deposits of iron-copper ore and phosphate in its surrounding areas. This opened a new chapter, both blessed and cursed.

Dawu had long struggled with self-sufficiency and poverty relief, before new conflicts emerged intensely in the 1970s between its mining sector and nearby villages. Its first official record of soil pollution caused by industrial waste emission also dates back to 1970. By the mid-1980s, industrial waste reached a peak, far exceeding the local natural capacity to absorb it. In 1981, the local government swiftly approved the establishment of its own EP office along with a large group of county pollution monitoring stations. One may interpret such swift measures of institutionalizing these monitoring stations across such a remote hilly county on the provincial border as the local government’s response to those serious results of soil contamination from the case of Daye. A short record in the Dawu Gazetteer may provide a few hints: Twenty thousand mu, nearly 3.3 thousand acres, of croplands were recognized officially as

50. Dawu County Gazetteer (Hubei, Wuhan), 1996; the local celebrities section, pp. 30-40, 630, 740–775.
51. Dawu County Gazetteer (Hubei, Wuhan), 1996; the section on the revolutionary historical archives and local celebrities from Daye, pp. 30, 32, 39-40, 630, and 740-775.
seriously damaged, coincidentally the exact same figure as officially reported for Daye just a few years earlier. This result is not surprising: in 1987, in Dawu, a total of 60 mining-related plants were reported still emitting waste with little proper treatment. The exact figure of damaged cropland acreages in Dawu makes the connection to the case of Daye much more valid.

Though largely isolated by surrounding mountains, Dawu did not escape the fate of other victims of soil pollution. Ironically, there was great hope that the county’s rich phosphorus mines and iron-ore reserves, which helped to support the resource-depleted iron mills of Daye, would promote more social welfare and economic growth. Investment in the mines had once been regarded as a solicitous special policy for Dawu as one of China’s revolutionary cradles, which was typically afflicted by poverty and geographic isolation. However, this locally well-known but barely documented case of soil pollution in Dawu can represent such a typical case that illustrates massive environmental costs caused by negative spillover effects of large-scale resource-extracting activities. Another investigative report on industrial pollution around 1979 described outbursts of popular anger, as noted first by sympathetic lower-level officials:

Because pollution problems have not been effectively resolved for so long, public health has been severely impaired. Many EP office representatives continually report that … the masses have strong resentment toward industrial pollution. Written petitions from the masses fly in like snowflakes. Some officers have still not paid due attention. The EP task is not on their agenda; many issues cannot just receive a service number and then stand in line for replies. There is no time to read these reports.53

53. HPA, Egehuan [79] 22, attached with a memo for the HEP internal conference; May 12, 1979.
Dawu continued mining activities into the 1990s before its phosphate reserve was exhausted. Chemical fertilizer and pesticides, particularly DDT, one of the most important chemical products manufactured in Dawu partly thanks to its mining sector, were widely used in the 1970s, and this clearly impacted later crop yields. However, in the 1970s, few were aware of the cumulative damage that pesticides and fertilizer caused to soil. In 1983, the use of DDT was banned in China after its long-term damage to the ecosystem was realized. Industrial mining sectors provided fiscal revenue and local employment. Local authorities had to support industrial growth. Those interest-conflict situations became alarming after agrarian losses due to soil pollution exceeded revenue earned from mining. Even quicker than county officials to recognize the losing game, some villagers sent appeal letters to their relatives who had left and served either in the central or provincial governments. Moral support was helpful, and most appeals received sympathetic official replies. Yet, county authorities could not neutrally resolve interest conflicts entangled among peasants and factories sharing the same local space. Industrial interest was vested most by the state-owned mills existing physically within but legally beyond their county jurisdiction. There were limits even on the space open for airing of views by those highly reputable military generals from Dawu who had survived so many cruel battles and internal conflicts during the revolutionary years.

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54. Ibid; also pp. 285–287, the Daye County Gazetteer (Hubei, Wuhan), 1996.
55. For one case of such letters of appeal by “anonymous” local peasants, see the HEP internal circulation, Issue 2, February 6, 1980, or Issue 4, April 12, 1980, HPA, re-catalogued as SZ151-1-21.
Further Discussion

Weighing trade-off between growth and pollution added complexities to both China's rural and urban spaces. As China's administrative system lacked clear or formally recognized avenues for shaping EP policy governance, the petition letters from commoners became the main form of expressing different views and received certain levels of “receptivity” from the state. Voices of commoners’ protest sounded tolerable while they were not large in scope and still under the state's control. Hubei’s archives shed light on how societal pressure had pushed EP governance within its local bureaucracy. Both continuities and ruptures have long evolved in China’s environmental history, from its ancient times to the present.

Our archival evidence can also support the thesis that the state of China has played a critical role in shaping its longue durée environmental trajectories, while local authorities have also played a pivotal role in mediating and implementing local balance. In various regional settings of China, many EP issues were also closely associated with the popular levels and the legitimacy of its local or central rulers.

extend beyond Hubei, one can still notice that many local officers had also worked assiduously for better local EP governance in China, despite local administrative systems often being blamed for EP regulation hurdles.60

Our findings contribute to comprehending how rising public pressures were deflected partly by local EP offices during those early reform decades. Local authorities in Hubei tended to pay closer attention to protests of urban residents than to those of villagers, and these local reports conveyed more messages of urban voices of protest against air pollution. Cases of soil pollution were comparatively isolated and had a more limited scope, whereas air pollution created more detectable damage. After 1949, the urban workforce throughout China worked mostly in its state-owned sectors or public-service units such as schools and hospitals. While urban residents bore the main effects of air pollution, rural people were more exposed to soil pollution.61 The vicinities or identities of pollution victims underlay sad disparities between the urban and rural space; reparations to pollution victims varied among social-economic groups, which created more resentment and challenges for inter-group negotiations.

As noted from the above cases, Hubei’s EP officers presented certain levels of consensus that industrial pollution would lead to inequitable social costs, particularly between the agricultural sectors and the manufacturing sectors. Individually motivated environmental activism was barely endorsed by the Chinese authorities. Despite local officials’ commitment to contain pollution, their regulator roles created minimal impact. Pollution in both urban and rural spaces continually threatened commoners’ livelihoods, while manufacturing interests received priority over rural ones. The work by local EP


officers of Hubei would at best be described as falling short of expectation, if not a total failure by the present standards. In their defense, it is unfair to demand that these officials display the willingness or capability to override the state policies already being prioritized for industrial growth. Local EP officials seemingly well knew the audiences of their reports and what was to be expected. To some extent, they acted to some EP governance intervention calls. In many routine reports on pollution calamities, various forms of negotiation existed among local offices, petitioners, and factory polluters. From time to time, local EP officers raised their voices and attempted to mediate inter-sector interest infringements. However, most of their measures neither created sufficient positive results nor altered the fundamentals that continually favoured the growth of state-owned manufacturing sectors.

This article collects archival evidence from Hubei to understand how local communities struggled against the industrial pollution that caused enormous damage to air and soil. Those commoners’ voices of protest typically evoked public-health issues with conflicting interest within local communities and economic sectors. Local EP officials felt compelled to strengthen anti-pollution policy measures with better governance. Reading between the lines in the subtexts of their investigation reports, one could also apply the *sine ira et studio* approach to better understand how they took a large portion of blame for failing EP governance in China; yet, they were usually described as a crowd of faceless and nameless figures. These officer investigators were still part of local communities, and most of them were also common persons, sharing the same identities with the urban or rural residents, such as teachers, students, civil and industrial workers, or peasants. Recognising the need to maintain industrial production and meet state-assigned output quotas, these local EP offices were guided

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by the state policy mandate yet dominated under economic principles. Supported more by administrative protocols, economic means, including processing fees, waste-discharge fees, and breaching penalties, were commonly employed at the provincial level and below. However, actual effects seemed disappointing, since similar incidents recurred in the same space where local communities frequently called on EP officials for more pollution damage investigation. These officers’ reports had probably also become parts of the local voices protesting against pollution. Nonetheless, these local officers continually filed the follow-up reports, often with sympathetic but seemingly useless remarks in the early reform eras of China in the 1970s-1980s.

Appendix

Figure 1: Hubei Map

Data Source: ArcGIS gallery, Esri, 2019.