Pollution Information Transparency Index

2017-2018

**Environmental Information Disclosure:** 

# Moving Towards Normalization

Annual Report of Pollution Information Transparency Index (PITI) for 120 Cities



### **Institute of Public and Environmental Affairs (IPE)**

The Institute of Public & Environmental Affairs (IPE) is a registered non-profit environmental research organization based in Beijing. Since its establishment in May 2006, IPE has developed the Blue Map Database (wwwen. ipe.org.cn), as well as the Blue Map app, the first Chinese environmental mobile app to track real-time pollution data, which went live in June 2014. IPE works to promote environmental information disclosure, public participation, and effective environmental governance strategies.

#### Natural Resources Defense Council (NRDC)

The Natural Resources Defense Council (NRDC) is an international nonprofit environmental organization that combines the power of more than 3 million members and supporters with the expertise of some 500 lawyers, scientists, and other environmental specialists. Since 1970, NRDC has worked to protect the world's natural resources, public health, and environment in countries and regions including the United States, China, India, Canada, Mexico, Chile, Costa Rica, and the European Union. NRDC is headquartered in New York City and has offices in Beijing; Washington, D.C.; Chicago; Los Angeles; San Francisco and Bozeman, Montana.

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With implementation of the Measures for Environmental Information Disclosure (Trial), 2008 became the first year of China's environmental information disclosure legislation. Over the past decade, due to unremitting efforts by the Chinese government, as well as continuous attention from and promotion by all sectors of society, the disclosure of pollution source supervision information – a key category of environmental information – saw breakthrough progress between 2017 and 2018. A group of leading cities are starting to normalize the disclosure of routine supervision information, but more regions must keep pace in order to achieve targets for tackling pollution.

This is the ninth consecutive year that IPE and NRDC have jointly released the annual Pollution Information Transparency Index (PITI) report. The PITI evaluation quantitatively assesses the disclosure of pollution source supervision information using five major indicators: environmental supervision information, pollution source self-disclosure, interactive response, enterprise emission data and environmental impact assessment (EIA) information. Each indicator is measured through four dimensions to determine if the information disclosure is systematic, timely, complete, and user-friendly.

This evaluation assessed 120 key environmental protection cities nationwide, among which Wenzhou ranked at the top with a score of 81, and Beijing, Tai'an and Qingdao ranked in second, third and fourth place, respectively. The scores achieved by these cities also set all-time records for the past nine years. Ningbo, Dongguan, Zibo, Jinan, Hangzhou and Yantai also entered the top 10.

The biggest highlight of this year's evaluation is the immense increase in public data. The Blue Map collected 2,000 corporate violation records in 2006; in 2018, however, the Blue Map collected more than 320,000. As of 2017, the public can access approximately 70% of environmental administrative punishment information through public channels. The disclosure of routine supervision records by the top ten leading PITI cities, including Beijing, Zibo, Yantai, Jinan, Wenzhou, Qingdao, and Dongguan, is nearly as publicly available as it needs to be. As an organization that has continuously focused on collecting, organizing and facilitating public access to environmental information, we believe that the disclosure of routine supervision information by a number of leading cities, including the aforementioned cities, demonstrates a trend toward normalization.

By analyzing the experience of leading cities such as Beijing, Qingdao, Dongguan, Xiamen and Chengdu, we see relatively complete disclosure mechanisms at the city level. Other major cities in Shandong and Zhejiang significantly expanded their information disclosure with the help of provincial or cross-departmental government platforms.

Another reason for the powerful upsurge in information disclosure was the environmental inspections by the central government. During the 2017-2018 evaluation period, the degree to which central environmental inspectors conducted their investigations was unprecedented. A large number of public complaints were reported to the local authorities, which were then required to formulate rectification plans within 30 days in accordance with supervision requirements and disclose them to the public. As a number of longstanding problems were resolved, passion for public participation grew. In 2017, the "National 12369 Environmental Reporting Platform" received 618,856 reports and complaints, and 2018 maintained the same high volume.

By analyzing information collected in the Blue Map, we found that a number of companies found with violations by the central government had previously received repeated public complaints, but the Blue Map had never collected their violation records through publicly available channels before. In this sense, the central government inspections broke through a layer of protection from local authorities to strengthen the overall supervision of factories.

The systematic publication of pollution source supervision information has also motivated more companies to make changes. In combination with information technology solutions such as the Blue EcoChain, the efficiency of green supply chain management has significantly improved.<sup>1</sup> Over the past two years, IPE's green supply chain program has pushed nearly 4,000 suppliers to take corrective action or disclose relevant pollution information on environmental violations. Since 2018, Blue Map data has been adopted by many banks and financial institutions for applications in green credit and risk management, as well as the issuance of green securities, green bonds, and green insurance.

Considering the substantial improvements made in the disclosure of routine supervision information, the average PITI score for this year's 120 cities is 52.2, slightly higher than 51.3 points last year. The lack of significant change in average PITI score may be due to the upgrade in PITI assessment metrics, but the rather stagnant score also reveals some problems.

First, the disclosure of self-monitoring data by key polluting entities has yet to be fully realized. The new Environmental Protection Law established key polluting entities as the primary responsible parties for corporate environmental information disclosure. During the evaluation period, there was a considerable increase in the list of key polluting entities, but corporate environmental information disclosure still lacks clear requirements for disclosure channels, content, form, frequency, and other details, which adversely affects implementation.

<sup>1.</sup> The Blue EcoChain is an initiative of IPE's green supply chain program that enables registered brands to receive automatic notifications regarding the regulatory compliance status of their suppliers; suppliers can also register to receive notifications on their own and upstream suppliers' compliance.

Second, Guizhou, Qinghai, Gansu and a few other regions have seen a digression in the real-time disclosure of online monitoring data. During the evaluation period, the acquisition rate of online monitoring data from key polluting entities was less than 5% in some cities.<sup>2</sup>

Third, the mandatory disclosure system for hazardous chemicals still needs breakthrough progress. A series of cases involving the illegal dumping, disposal and transfer of hazardous waste, as well as the Quanzhou Harbor carbon nine leakage during the evaluation period exposed the lack of management and information disclosure for toxic and hazardous substances. Strengthening the management of hazardous chemicals and regulations on toxic and hazardous pollutant emissions requires the establishment of full process monitoring throughout the generation, transfer, and disposal of such pollutants, founded in information disclosure and data transparency.

Based on the progress and problems found in this evaluation, this report puts forth four recommendations:

- 1. Incorporate environmental information disclosure into the scope of environmental inspections; it is recommended that the next round of environmental inspections build more guidance mechanisms to promote progress in some areas with poor environmental information disclosure;
- 2. Improve regulations to fully implement the disclosure of self-monitoring data by key polluting entities;
- 3. Strengthen legislation and legal requirements to establish a mandatory environmental information disclosure system centered on a pollutant release and transfer registry (PRTR) system for toxic and harmful pollutants, local pollutants, and greenhouse gas emissions data.
- 4. Collaborate with the government reform to "simplify procedures, decentralize power, enhance supervision, and optimize public services" by making full use of the convenient mobile internet and social media for public participation in EIA information, ensure the accuracy of EIA information and collect public opinions and feedback efficiently.

<sup>2.</sup> The data acquisition rate refers to the amount of information IPE was able to find through publicly available official government channels compared to the amount of information that is required to be published according to relevant regulations.



## **Pollution Information Transparency Index**

The Pollution Information Transparency Index (PITI), jointly developed by the Institute of Public and Environmental Affairs (IPE) and the Natural Resources Defense Council (NRDC) in 2009, aims to assess the disclosure of pollution source supervision information, identify and promote good local practices, and promote the disclosure of environmental information. Since 2009, the project team has conducted an evaluation of key national environmental protection cities for nine consecutive years. During this evaluation, several local environmental groups joined the effort by conducting additional PITI evaluations for cities that are not key environmental protection cities in their respective provinces. This year, a total of 174 cities were covered by PITI evaluation.

Figure 1. Cities Covered by PITI Assessment

#### **Assessment Scope**

The current evaluation scope has been slightly adjusted from that of the previous period.

On January 1, 2018, the Environmental Protection Tax Law was implemented. Discharge fees for four types of pollutants, including those in air, water, soil and sound, were previously levied by environmental protection bureaus; now, however, taxation departments will levy these payments as environmental taxes. This year's evaluation therefore eliminated the secondary indicator for the disclosure of discharge fee breakdowns. Additionally, in past evaluations, the secondary indicator for the disclosure of cleaner production audit data primarily assessed whether local governments disclose cases that exceed pollution or total quantity control standards and a list of enterprises that use or discharge toxic and hazardous substances, and whether these "exceeding or having" enterprises disclose their environmental information to the public. For this assessment period, these two metrics were merged into the disclosure of excess emissions and other daily violation records and the enterprise emission data indicators, respectively. This integrated evaluation system includes five primary indicators: environmental supervision information, pollution source self-disclosure, interactive response, enterprise emission data and environmental impact assessment (EIA) information, as well as eight secondary indicators.

**Environmental Supervision Pollution Source Self-Interactive Response Enterprise** EIA Information **Disclosure** (15 points) **Emission Data** Information (30 points) (26 points) (14 points) (15 points) **Indicators** Disclosure of Disclosure of Enterprise Disclosure Disclosure of Disclosure of Central Disclosure Disclosure of of Automatic Key Polluting Environmental **Emission Data of** Information Excess Emissions Environmental Upon and Other Daily Performance/Credit Entities Monitoring Supervision and Request **Key Enterprises** Violation Records Ratings Information Complaints Score 20% 6% 8% 14% 15% 25% 5% 7% **Distribution** 

Figure 2. Assessment Indicators

Each indicator is measured from four dimensions: systematicness, timeliness, completeness, and user-friendliness.

Systematicness

Timeliness

User-friendliness

Completeness

Figure 3. PITI Indicator Assessment Dimensions

#### **Assessment Results**

Figure 4. Top 12 Cities



74.3 Points

73.4 Points

75 Points

Figure 5. 2017-2018 PITI Assessment Results and Rankings for 120 Cities

Ranking	City	Score	Ranking	Ranking	City	Score	Ranking
1	Wenzhou	81	Change → 0	31	Shijiazhuang	63.7	Change 16
2	Beijing	79.6	<b>1</b>	32	Quanzhou	63.7	<b>↑</b> 24
3	Tai'an	78.6	<b>1</b> 24	33	Zhengzhou	63.6	<b>1</b> 28
4	Qingdao	78.5	<b>→</b> 0	34	Huzhou	63.4	<b>4</b>
5	Ningbo	77.7	<b>1</b> 9	35	Rizhao	62.3	<b>1</b> 3
6	Dongguan	76.3	<b>1</b> 7	36	Nantong	61.9	<b>4</b> 2
7	Zibo	76.1	<b>1</b> 2	37	Zaozhuang	61.8	<b>1</b> 5
8	Jinan	75.2	<b>→</b> 0	39	Tianjin	60.4	<b>↓</b> 13
9	Hangzhou	75	<b>→</b> 0	38	Lianyungang	60.4	<b>1</b> 3
10	Yantai	75	<b>1</b> 3	40	Zhenjiang	59.9	<b>1</b> 7
11	Taizhou	74.3	<b>1</b> 0	41	Suzhou	59.5	<b>4</b> 31
12	Xiamen	73.4	<b>4</b> 5	42	Changsha	59.5	<b>1</b> 33
13	Wuxi	72.8	<b>1</b> 26	43	Luoyang	59.4	<b>1</b> 28
14	Zhongshan	71.6	<b>▼</b> 8	44	Tangshan	59.1	<b>4</b> 4
15	Shaoxing	70.8	<b>4</b> 3	45	Mianyang	57.9	<b>1</b> 44
16	Changzhou	70.3	<b>1</b> 5	46	Jiaozuo	57.4	<b>♦</b> 59
17	Baoding	69.9	<b>1</b> 33	47	Yangzhou	56.3	<b>↑</b> 12
18	Jining	69.4	<b>1</b> 8	48	Yancheng	56.2	<b>4</b> 20
19	Handan	69.1	<b>1</b> 6	49	Shenyang	55	<b>4</b> 4
20	Weifang	68.7	<b>1</b> 20	50	Nanchang	55	<b>♦</b> 15
21	Foshan	68.4	<b>4</b> 5	51	Zhanjiang	54.7	<b>1</b>
22	Guangzhou	67.5	<b>↓</b> 21	52	Zhuhai	53.8	<b>▼</b> 19
23	Jiaxing	67.5	<b>4</b> 7	53	Dalian	53.6	<b>4</b> 33
24	Shanghai	66.4	<b>4</b> 13	54	Wuhu	52.9	<b>4</b> 6
25	Fuzhou	66.3	<b>1</b> 9	55	Xuzhou	52	<b>4</b> 23
26	Shenzhen	65	<b>4</b> 9	56	Qujing	52	<b>1</b> 20
27	Weihai	64.9	<b>1</b> 24	57	Zigong	51.4	<b>♠</b> 27
28	Nanjing	64.5	<b>1</b> 2	58	Anyang	51.1	<b>★</b> 50
29	Chengdu	64.3	<b>4</b> 5	59	Yan'an	50.6	<b>4</b> 8
30	Hefei	63.7	<b>4</b> 13	60	Qinhuangdao	49.8	<b>♦</b> 6

Ranking	City	Score	Ranking Change	Ranking	City	Score	Ranking Change
61	Deyang	49.7	<b>1</b> 40	91	Daqing	41.6	<b>1</b> 22
62	Luzhou	49.5	<b>1</b> 8	92	Liuzhou	41.4	<b>4</b> 7
63	Ma'anshan	49.2	<b>▼</b> 8	93	Xi'an	41	<b>4</b> 4
64	Shizuishan	49.1	<b>1</b> 9	94	Baotao	40.4	<b>4</b> 29
65	Changchun	48.7	<b>1</b> 8	95	Urumqi	40.3	<b>4</b> 37
66	Jilin	48.4	<b>1</b> 1	97	Sanmenxia	39.8	<b>4</b> 7
<b>67</b>	Fushun	48.3	<b>1</b> 32	96	Ordos	39.8	<b>1</b> 0
68	Yuxi	48	<b>1</b> 23	98	Zunyi	39.5	<b>4</b> 11
69	Yibin	47.3	<b>1</b> 3	99	Wuhan	38.5	<b>♦</b> 62
70	Shantou	47.2	<b>4</b> 17	100	Anshan	37.4	<b>4</b> 14
71	Nanchong	47.2	<b>1</b> 2	101	Harbin	37.2	<b>4</b> 7
72	Taiyuan	46.6	<b>1</b> 32	102	Weinan	36.8	<b>4</b> 2
73	Changde	46.3	<b>1</b> 5	103	Yichang	36.5	<b>→</b> 0
74	Nanning	46.2	<b>4</b> 6	104	Pingdingshan	36.4	<b>♦</b> 8
75	Shaoguan	45.9	<b>\</b> 1	105	Zhangjiajie	36	<b>1</b> 6
76	Kunming	45.6	<b>4</b> 9	106	Qiqihar	35.8	<b>♦</b> 8
77	Chongqing	45.4	<b>1</b> 4	107	Jinzhou	35.6	<b>1</b> 8
78	Kaifeng	45.3	<b>1</b> 36	108	Hohhot	35.4	<b>4</b> 79
<b>79</b>	Guilin	44.6	<b>\</b> 15	109	Jingzhou	35	<b>4</b> 12
80	Changzhi	44.1	<b>1</b> 5	110	Chifeng	34.6	<b>4</b> 50
81	Zhuzhou	43.5	<b>1</b>	111	Guiyang	32	<b>4</b> 16
82	Jiujiang	43.4	<b>4</b> 20	112	Yangquan	31.9	<b>4</b> 3
83	Panzhihua	43.1	<b>1</b> 0	113	Xianyang	31.8	<b>\</b> 11
84	Beihai	43	<b>4</b> 1	114	Linfen	31.5	<b>1</b> 6
85	Yinchuan	43	<b>4</b> 16	115	Karamay	28.7	<b>1</b> 2
86	Xiangtan	42.8	<b>4</b> 20	116	Xining	26.2	<b>4</b> 24
87	Tongchuan	42.8	<b>♦</b> 6	117	Benxi	25	<b>\</b> 1
88	Jinchang	42.4	<b>1</b> 22	118	Lanzhou	24.6	<b>4</b> 6
89	Yueyang	42.3	<b>4</b> 10	119	Mudanjiang	19.3	<b>4</b> 1
90	Baoji	42.1	<b>4</b> 10	120	Datong	19.1	<b>4</b> 1

Figure 6. Average Provincial Scores

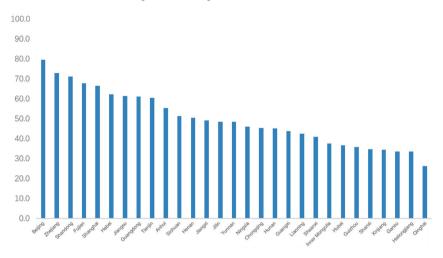
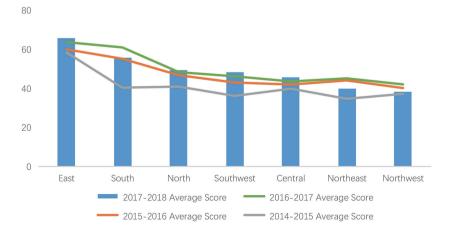


Figure 7. Comparison of PITI Scores for the Four Provincial-Level Municipalities



Figure 8. Score Comparison of Average Scores for Major Geographic Regions



#### **Key Improvements**

## Key Improvement 1: The disclosure of routine environmental supervision information is moving toward normalization.

As an organization that has continuously focused on collecting, organizing and facilitating public access to environmental information, we believe that in the current evaluation period, there has been a trend toward normalization for the disclosure of routine supervision information. Such normalization, under our definition, is linked to a fundamental PITI assessment dimension – systematicness, which includes two major aspects, namely the comprehensive coverage of the information and the regularity of publication for such information.

In terms of comprehensive coverage, over the past nine years of PITI history, the first seven years saw limited numbers of corporate violations records collected in the Blue Map Database, so much so that there was little comparability between the penalties disclosed and the actual penalties issued for enterprises. In the past two years, however, this has significantly changed.

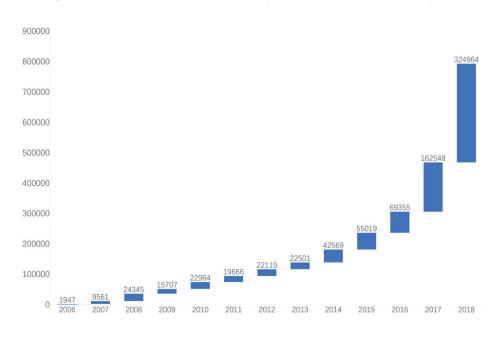


Figure 9. Annual Total of Pollution Source Supervision Records in the Blue Map

From the figure above, it should be noted that in 2016, the Blue Map collected a total of 69,355 corporate environmental violation records; in 2017, this number increased rapidly to 162,548; and by December 18, 2018, it jumped to 324,964.

Looking back on the Blue Map progress in 2018, the amount of entries we collected are equal to 25.4% of all the past 12 years of data collection; if the data from the 2016 illegal construction project clean-up initiative is taken out, the percentage increases to 41.2%.

More important, however, is the comparison between the amount of data collected by Blue Map and that of the actual routine supervision records. According to the 2017 "Summary of the Rule of Law and Governance Work from the Former Ministry of Environmental Protection," environmental protection bureaus nationwide issued a total of 233,000 environmental administrative punishment decisions. As of December 11, 2018, the Blue Map collected a total of 258,000 pollution source violation records in 2017, of which 163,000 were penalty fines. This means that the public now has access to approximately 70% of penalty records through openly available channels.

While analyzing this year's highest ranking cities for routine supervision information disclosure, we first notice that the disclosures closely follow the principle of "disclosure is the norm, and non-disclosure is the exception."

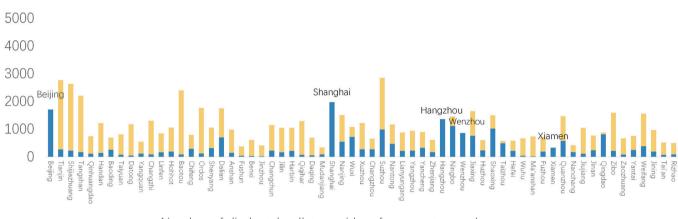
Before 2015 and 2016, the vast majority of cities' information disclosure for routine supervision records fell far behind the actual data. However, in our last evaluation, seven cities surpassed the amount of pollution source supervision information that they were estimated to disclose; and with increasingly comprehensive and systematic coverage of daily violations from key polluting entities, 18 cities surpassed the amount of entries they were estimated to disclose.<sup>5</sup>

<sup>3. &</sup>quot;2017 Summary of the Rule of Law and Governance Work from the Former Ministry of Environmental Protection," Ministry of Ecology and Environment website, April 8, 2018, http://zfs.mee.gov.cn/fzjs/xzfy/201804/t20180408 433688.shtml.

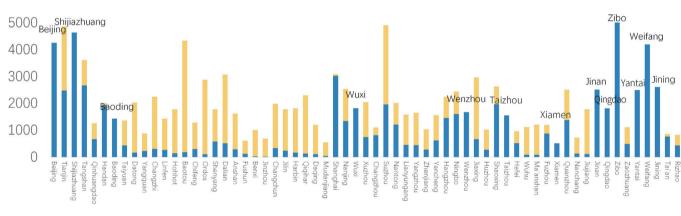
<sup>4.</sup> In addition to the environmental administrative punishment information, the information collected by the Blue Map "Supervision Records" column also includes information on the supervisory monitoring of pollution sources, verified environmental complaints and reporting, and companies that received below yellow rating on an environmental credit rating evaluation.

<sup>5.</sup> To assess the comprehensiveness of information disclosure, the PITI project team estimated how many violation records each city should disclose. This methodology used a statistical coefficient based on the amount of information disclosed by the top 20 cities regarding pollution source supervision information and industrial pollutants, then compared these estimates to the actual amount disclosed.

Figure 10. Comparison of Estimated and Actual Pollution Source Supervision Information Disclosed by Cities

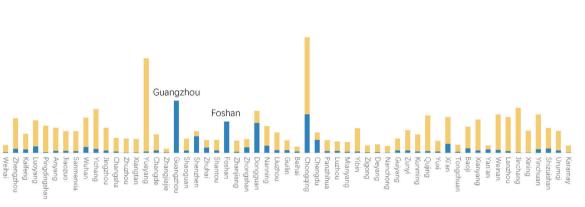


■ Number of disclosed polluters with enforcement records



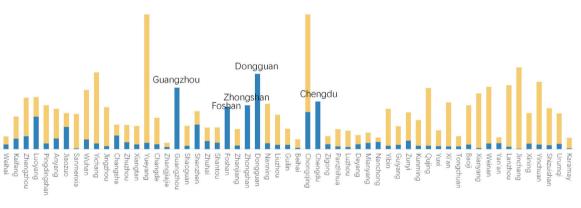
■ Number of disclosed polluters with enforcement records

It is not difficult to see from the graphs above that the strength of environmental efforts has expanded. Cities that surpassed their estimated disclosures include Beijing, Zibo, Yantai, Jinan, Zhongshan, Xiamen, Jining, Taizhou, Weifang, Chengdu, Wenzhou, Guangzhou, Qingdao, Baoding, Dongguan, Foshan, Shijiazhuang, and Wuxi.



2016

Difference with projected number of polluters with enforcement records



2017

Difference with projected number of polluters with enforcement records

Upon a closer look, the reasons these cities achieved success are varied:

- Some cities have established their own comprehensive disclosure systems
- Some cities leverage provincial or cross-departmental government platforms to expand the scope of their disclosure

Beijing, Qingdao, Dongguan, Xiamen, Chengdu, and Ningbo have very comprehensive disclosure mechanisms.

Figure 11. Websites of Case Cities (Photos taken December 17, 2018)



















Other cities, in addition to their deliberate efforts toward transparency, also leverage their provincial platforms for more effective disclosure. In particular, a group of cities in Shandong stand out. Shandong Province effectively improved its data transparency through the enterprise environmental credit rating system of the Shandong Province Department of Ecology and Environment. Six out of 10 cities in Shandong surpassed the number of estimated disclosure entries; Tai'an increased its score by 10 points for routine supervision records, moving up 24 seats in the rankings to reach third place out of 120 cities!

Figure 12. Enterprise Environmental Credit Rating System of Shandong Province (Source: http://123.232.114.99:8088/SDXY, December 17, 2018)



The outstanding performance of cities in Zhejiang Province is also due to a strong provincial platform. In addition to the website of the Zhejiang Province Department of Ecology and Environment, the provincial government administrative service website compiled information on the province, cities, districts, counties, and townships, and publicized penalty information in its administrative punishment results column under Yangguang Governmental Affairs.

Figure 13. Yangguang Governmental Affairs Column on the Zhejiang Governmental Affairs Website (Source:http://www.zjzwfw.gov.cn/col/col14/index.html,November 27,2018)





## **Key Improvement 2: Central government inspections encourage public participation**

During the 2017-2018 assessment period, the central government environmental inspections reached an unprecedented level of thoroughness. They also invited the public to participate in and report on environmental violations through a specialized channel, in addition to the regular reporting channels. After the inspections, reported cases were delegated to local agencies for further confirmation and rectification. According to the inspection regulations, local party representatives and governments under central supervision must develop rectification plans in accordance with supervision requirements and disclose them to the public within 30 days.



Figure 14. Central Government Environmental Inspections

Many years of accumulated problems were finally revealed through these inspections. As a number of longstanding problems were resolved, passion for public participation grew.

According to the Ministry of Ecology and Environment (MEE) special notice [2018] No. 500, "Notice on 2017 National 12369 Environmental Reporting Work," in 2017, "the National 12369 Environmental Reporting Platform received 618,856 reports and complaints, including 409,548 reports by telephone, 129,423 over WeChat, and 79,885 online. According to the MEE's monthly publication of the National 12369 Environmental

Reporting Platform summary, from January to October in 2018, the 12369 platform received 565,692 complaints nationwide, among which 279,614 were calls, 215,902 were received through WeChat, and 70,034 were received online.

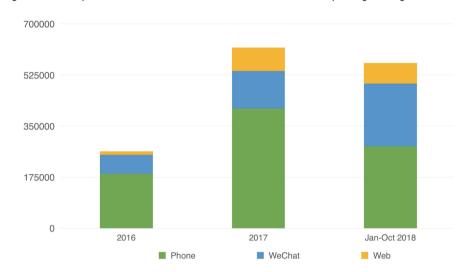


Figure 15. Complaints Received on the National Environmental Reporting Management Platform

The central government environmental inspections prompted a large number of complaints and reports as well as the publication of their follow-up results. Data in the Blue Map, which is based on corporate environmental supervision information, subsequently increased significantly.

The importance of data from the inspections is not just an increase in quantity. Analyzing the information collected by the Blue Map, we found a number of companies that were identified as violating regulations and previously, repeatedly reported by the community, but never received any environmental violation records. In this sense, the central government inspections broke through a layer of protection from local authorities to strengthen supervision over enterprises.

With the establishment of a permanent central government supervision mechanism and the release of a supervision plan for the next four years, we believe that the central government inspections will become an important source of information on environmental complaints and reports. Therefore, in the current PITI evaluation, in addition to the regular assessment of environmental complaints and reports, we also included information on complaints and reports disclosed through the central government inspections.

## **Key Improvement 3: Information transparency drives green development and stimulates corporate transformation**

Actively carrying out environmental enforcement, effectively penalizing violations according to law, and comprehensively disclosing enforcement and punishment information all help build an important foundation of information that mobilizes market mechanisms to promote environmental protection.

Some provinces and cities have launched official environmental credit evaluations. Among them, enterprise environmental credit evaluations combined with environmental enforcement information in Shandong Province provided a dynamic assessment of corporate environmental credit for financial institutions and investors, incorporating administrative punishments, progress on rectification efforts, energy conservation and other criteria. These assessments helped to further the implementation of local green finance policies.

The systematic publication of supervision information also provided the basis for third-party environmental credit evaluations and enterprise risk assessments. Based on the green finance policies of seven ministries and commissions that encourage third parties to participate in environmental credit evaluation, IPE, as a member of the Green Finance Committee, launched a dynamic corporate environmental credit evaluation system.

At present, the Blue Map Database has been adopted by many banks and financial institutions for green credit evaluation and risk management. Recently, financial institutions have begun to encourage companies that have taken loans to contact the Blue Map and, through a transparent and participatory process, publicly explain their environmental violations and rectification progress.

Additionally, the Blue Map also supports the development of green securities, green bonds and green insurance. Some listed companies have publicly explained violation records in the Blue Map through the stock exchange, while other enterprises intending to undergo an initial public offering (IPO) have also explained their relevant records in the Blue Map.

The Blue Map Database has been used in green supply chains for many years. The increased amount of data, combined with information technology solutions such as the Blue EcoChain, has significantly improve the efficiency of green supply chain management. Through green supply chain management and public supervision, we promote the green transformation of enterprises and further advance green development.

To date, a total of 55 brands use the Blue Map Database on a quarterly or more frequent basis to retrieve environmental compliance information for their suppliers in China. A total of 4,877 suppliers have publicly explained issues such as violating environmental standards, and 2,282 companies have taken corrective action in response to 4,769 environmental violation records.

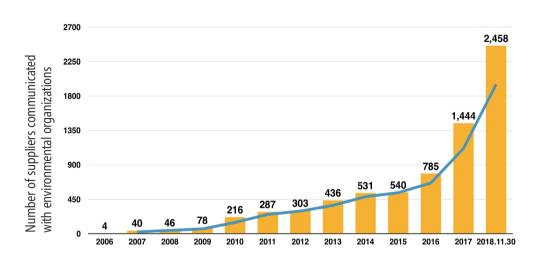


Figure 16. Trend of Brand-Driven Supply Chain Action

An environmental governance system led by the government, in which enterprises are the main primary governing bodies while social organizations and the public widely participate must continuously improve and expand avenues for public participation. In the internet age, mobile applications increasingly facilitate the public's participation in environmental protection.

The "Fingertip Environmental Protection" initiative jointly launched by the China Forum of Environmental Journalists and IPE aims to facilitate the public's understanding of and ability to express concern for nearby pollution through mobile phone applications to push violating enterprises to take corrective action.

Since the Blue Map app was launched in June 2014, Blue Map netizens and Lvse Jiangnan, Green Qilu, Green Taihang, Wuhu Ecology Center, Shenyang Green Hope and Jiangxi Environment Communication Centre have encouraged 1,421 large state-owned enterprises to provide feedback on self-monitoring data that violated environmental standards. The cumulative number of communications has reached 1,967 times.



#### **Key Shortcomings**

Considering the substantial improvements made in the disclosure of routine supervision information, the average PITI score for this year's 120 cities is 52.2, slightly higher than 51.3 points last year.<sup>6</sup> One reason why the average PITI score did not significantly change may be the upgrade in PITI assessment metrics, but the relatively stagnant score also reveals some problems.

## Key Shortcoming 1: The disclosure of self-monitoring data by key polluting entities has yet to be fully realized

In 2015, the new Environmental Protection Law established key polluting entities as the primary parties responsible for corporate environmental information disclosure. The subsequent Measures on Environmental Information Disclosure for Enterprises and Public Institutions, Air Pollution Prevention and Control Law, and Water Pollution Prevention and Control Law continued this practice.

In the past two PITI evaluations, the lack of monitoring conditions and principles for key polluting entities has hindered the disclosure of these emitters. For this reason, IPE, SEE Foundation and other stakeholders have been working hard to encourage the establishment of standards for the directory of key polluting entities. On November 25, 2017, the former general office of the Ministry of Environmental Protection issued the Regulations on the Management of the Directory of Key Polluting Entities (Trial), which clearly defined the monitoring guidelines for key polluting entities with regard to air, water, soil and sound.

Water Pollution Related
Key Polluting Entities Directory

Noise Pollution Related
Key Pollution Related
Key Pollution Related
Key Pollution Entities Directory

Noise Pollution Related
Key Pollution Entities Directory

Noise Pollution Related
Key Pollution Entities Directory

6. In the previous evaluation, due to special efforts to clean-up and disclose illegal construction projects in various regions, an additional point was added for an overall average score of 52.3 points.

The new standard has effectively promoted the development and disclosure of the directory of key polluting entities, and the number of enterprises that are included in the list has increased significantly in some regions. Take Hebei as an example; in 2016, according to Blue Map Database, there were a total of 376 national and provincial key monitoring enterprises and key polluting entities related to air pollution in Hebei Province, a number that increased to 1,919 in 2018.<sup>7</sup>

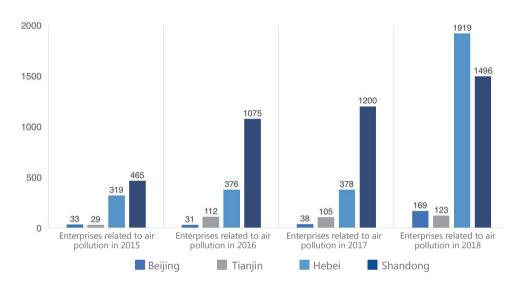


Figure 18. Increase in the Number of Enterprises Monitored for Air Pollution in Beijing, Tianjin, Hebei and Shandong

However, the inclusion of more enterprises on the list is only the first step for the information disclosure of key polluting entities. There is still a lack of clear requirements regarding the channel, content, form, and frequency of disclosures, which will adversely affect implementation.

Take Tianjin as an example. By searching for the "Tianjin Key Polluting Entities Self-Monitoring Information Disclosure Platform," we found that:

- Among the 123 enterprises listed as key polluting entities for air pollution, 49 still have not been included on the platform;
- Among the 74 key polluting entities for air pollution included on the platform, 24 have not disclosed their environmental information in accordance with the relevant provisions of the Measures on Environmental Information Disclosure for Enterprises and Public Institutions and the Air Pollution Prevention and Control Law; and
- In addition to the key polluting entities for air pollution, another 400 enterprises included in the directory
  of key polluting entities are either missing from the platform or have not disclosed any environmental
  information <sup>8</sup>

<sup>7. &#</sup>x27;Key polluting entities' are classified as such under the new Environmental Protection Law enacted in 2014; key monitoring enterprises were designated as such by former regulations that remain active.

<sup>8.</sup> Search as of Oct 8, 2018.

In communications with the Tianjin environmental protection bureau, we learned that Tianjin has not yet required all key polluting entities to disclose environmental information on the platform mentioned above. The reasons for this decision include the "lack of legal basis" and "limitations of the platform itself."

## **Key Shortcoming 2: Regional variations in the disclosure of self-monitoring data** have deepened

The Measures on Self-Monitoring and Information Disclosure for Key State-Monitored Enterprises (Trial) has made substantial breakthroughs in the real-time disclosure of corporate emissions data. Over the past five years, local governments have gradually established platforms and mechanisms for the disclosure of such state-monitored pollution source emissions data.

In the past four PITI evaluations, it should be noted that in 2014, the mechanisms for these disclosures were gradually implemented and continued to move forward between 2015 and 2016. However, in 2017, we saw a digression in some regions.

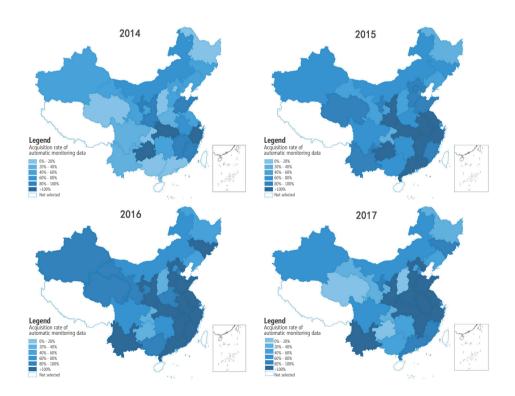


Figure 19. Average Acquisition Rate of Self-Monitoring Data from National Key Monitoring Enterprises

Further data analysis shows that the acquisition rate of self-monitoring data from state-monitored enterprises was less than 5% in some cities during this evaluation period.

Take Guizhou as an example. The "Guizhou Provincial Department of Environmental Protection Notice on Strengthening the Management and Publication of Pollution Source Self-Monitoring Information" (2018, No. 195) explicitly emphasizes that "in accordance with the requirements of the Ministry of Ecology and Environment, enterprises that monitor and disclose environmental information on the state-monitored emissions reduction website shall continue to do so under the supervision of the local EPBs. Local environmental protection departments should continue to encourage disclosures by state-monitored enterprises as well." However, a closer look at the state-monitored emissions reduction website reveals that most of these enterprises have ceased to publicize their environmental information. Meanwhile, the Guizhou Province Information Disclosure Platform, which is connected with the MEE National Pollution Source Monitoring Platform, did not disclose this real-time monitoring data either.

Figure 20. Information Disclosure Platform of Guizhou Province (Source: http://123.127.175.61:6375 /eap/hb/cxfx/jcsjcx/dtcx/qyxx.jsp?id=247112141334486&sheng=520000&model=1, 2018/12/8)



<sup>9.</sup> Guizhou Provincial Department of Environmental Protection Notice on Strengthening the Management and Publication of Pollution Source Self-Monitoring Information, Guizhou Environmental Protection Bureau, August 8, 2018.

## **Key Shortcoming 3: The information disclosure and management for hazardous chemicals needs improvement**

Since 2018, the media has exposed many dangerous waste dumping incidents, including the illegal dumping of 168,000 cubic meters of industrial waste in Hongdong County, Shanxi Province<sup>10</sup>; tens of thousands of tons of solid waste in Qianjiang Industrial Park, Guichi District, Anhui Province<sup>11</sup>; the illegal disposal, transfer, and storage of hazardous waste by the Yancheng Huifeng Company;<sup>12</sup> and the severe consequences caused by the leakage of carbon nine in Quanzhou Harbor, all of which have raised great public concern.





These pollution incidents have exposed the insufficient management of toxic and hazardous substances in China and the disclosure of related information. Strengthening the management of hazardous chemicals and the regulations on toxic and hazardous pollutant emissions requires the establishment of full process monitoring throughout the generation, transfer, and disposal of such pollutants, for which information disclosure and data transparency are essential.

Since the implementation of the Measures for Environmental Information Disclosure (Trial) in 2008, China has achieved remarkable progress in the field of environmental information disclosure, and is a world leader in the disclosure of real-time emissions data for state-monitored pollution sources. However, there is still a huge gap between the present disclosure of information regarding the discharge of toxic and hazardous substances and the management of hazardous chemicals, and that of prevailing international practice.

<sup>10.</sup> MMEE Inspection in Shanxi: Sanwei Corporation Illegal Dumping of Industrial Waste, CCTV, May 15, 2018.

<sup>11.</sup> MEE dispatches personnel to supervise the problem of solid waste pollution in Chizhou City, Anhui Province, MEE, April 20, 2018.

<sup>12.</sup> Ministry of Ecology and Environment notifies the Yancheng Huifeng Company of severe environmental pollution, MEE, April 20, 2018.

<sup>13.</sup> Shanxi Sanwei Corporation disposed of wastewater into the local mother river, ruining crops and producing foul smells, CCTV Finance, April 18, 2018.

The Pollutant Release and Transfer Register (PRTR) system is internationally recognized as effective for regulating toxic and hazardous pollutants. It promotes pollution reduction by providing voluntary disclosure platforms for enterprises to publish information regarding their chemicals use and transfer. The original Regulations on the Environmental Management of Hazardous Chemicals (Trial), promulgated by the previous Ministry of Environmental Protection in 2012, established a prototype of the PRTR system. However, this regulation was abolished in 2016.

Since then, the Measures on Environmental Information Disclosure for Enterprises and Public Institutions has mandated the disclosure of particular pollutants by enterprises. In light of this mandate, some key polluting entities have disclosed information regarding the discharge of such pollutants and hazardous waste, but the emissions and transfer information of toxic and hazardous pollutants is not systematically disclosed or institutionalized.

In this issue of PITI evaluation, a total of 4,937 annual reports of enterprises were investigated, of which 3,930 annual reports included information on pollutant emissions volumes, while only 962 annual reports included hazardous waste transfer and disposal information, and 882 reports included data for heavy metals and other pollutants.

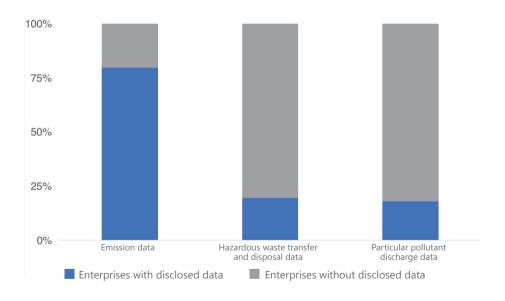


Figure 22. Information Disclosure of Enterprises' Annual Pollutant Discharge Data



## 1. Incorporate information disclosure into the scope of environmental inspections to resolve the severe lack of information disclosure in some regions.

The central environmental inspections and inspection agencies have both emphasized the importance of supervision. At the China Ecological Civilization Forum held in Nanning in December 2018, Minister of Ecology and Environment Li Ganjie announced that starting in 2019, his ministry will launch a second round of central environmental inspections over the next four years. We recommend that this newest round of environmental inspections focus more on establishing guidance mechanisms in addition to solving individual cases.

In the current evaluation, while identifying leading areas, we also found that the information disclosure of pollution sources in some regions severely lags behind the rest. The regional gap has widened further, which weakens the incentive for enterprises to pursue green development, and may even cause pollution sources to transfer to regions that are less well-regulated. We recommend that the new round of environmental protection supervision include "information disclosure" into the scope of environmental protection inspections and solve the problem of serious shortage of environmental information disclosure in some areas.

## 2. Improve legislation to fully implement the disclosure of self-monitoring data by key polluting entities.

After four years of implementation of the Measures on Environmental Information Disclosure for Enterprises and Public Institutions, with the exception of the original state-monitored enterprises, other key polluting entities have not yet made a significant breakthrough in information disclosure. One of the key reasons for this stagnation is that specific requirements for the channel, approach and frequency of information disclosure, among other requirements, are still not clear. The Measures on Environmental Information Disclosure for Enterprises and Public Institutions (Draft for Comment), which is a revision of the previous version, has addressed the aforementioned problems and established clear channels and timelines of information disclosure channels for key polluting entities. We recommend that this version of the measures be revised as soon as possible to provide operational guidelines for key polluting entities and to realize the corporate environmental information disclosure of key polluting entities.

#### 3. Strengthen legislation to establish a national PRTR system in China.

Both the new Water Pollution Prevention and Control Law (effective 2018) and the Soil Pollution Prevention and Control Law (effective 2019) impose certain disclosure requirements on enterprises that emit toxic and harmful pollutants. The Measures on Environmental Information Disclosure for Enterprises and Public Institutions (Draft for Comment) also requires that key polluting entities disclose pollution discharge information for major and particular pollutants. Relevant information disclosure requirements are also mentioned in the draft revisions to the Solid Waste Pollution Prevention and Control Law.

On this basis, we recommend further improving legislation, promoting the establishment of a PRTR system, strengthening risk prevention, enhancing communication with and the participation of affected communities, and enforcing the management of hazardous waste and hazardous chemicals.

Regarding climate change, more bottom-up efforts are needed to achieve the goal of controlling global warming within 2 °C to 1.5 °C according to the Paris Agreement. It is recommended that the government establish a greenhouse gas emissions information disclosure system, especially a corporate disclosure system, to achieve emissions reduction targets.

## **4**. Promote the targeted disclosure and efficient application of environmental impact assessment (EIA) information

With the government reform to "simplify procedures, decentralize power, enhance supervision, and optimize public services", some EIA approvals have been decentralized as follow-up and in-process supervision have been strengthened and as the efficiency of the examination and approval process has improved.<sup>14</sup> It is necessary to simplify the administrative process and improve efficiency, but it also brings the challenge of smaller timeframes in which the public may participate.

We recommend improving the efficiency of EIA information disclosure and public participation while considering how to make the public fully informed and involved in a more limited timeframe. Advanced information technology has made this possible: the government can precisely notify potentially affected communities and populations based on location, and collect comments and suggestions easily and efficiently through the internet and social media.

Thank you to Alibaba Foundation, Ai You Foundation, and SEE Foundation for funding this report. The original text and suggestions in this report are those of the authors and are not representative of these Foundations.

<sup>14.</sup> Guide to Further Deepening Reform to Simplify Procedures, Decentralize Powers, Enhance Supervision, and Optimize Public Services in the Field of Ecological Environment and Promoting the High-Quality Development of the Economy, MEE.



Thank you to the Alibaba Foundation, Ai You Foundation, and SEE Foundation for funding this report. The original text and suggestions are those of the author of this report and are not representative of those Foundations.







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