

Pollution  
Information  
Transparency  
Index

# New Mindsets, Innovative Solutions

2014-2015 Annual PITI Assessment

Authors: Institute of Public & Environmental Affairs (IPE)    Natural Resources Defense Council (NRDC)





# Table of Contents

<b>Foreword</b> .....	1
<b>Executive Summary</b> .....	3
<b>Chapter 1: Assessment Scope, Objectives, and Methodology</b> .....	7
<b>Chapter 2: Assessment Results</b> .....	10
Section 1: Overall Scores and Rankings .....	10
Section 2: PITI Score Comparison for Similar Districts & Cities .....	14
1. Score Comparison for the Four Municipalities .....	14
2. Score Comparison for Provincial Capitals .....	15
3. Score Comparison for Major Geographic Areas.....	15
4. Score Comparison for Cities Within Provinces (for more information, refer to appendix 3) .....	16
<b>Chapter 3: Assessment Findings</b> .....	17
Section 1: Key Improvements and Existing Shortcomings .....	17
1. Key Improvements.....	17
2. Existing Shortcomings .....	20
Section 2: Subcategory Assessments.....	21
I. Disclosure of Pollution Source Supervision Records.....	21
II. Interactive Responses.....	35
III. Enterprise Emissions Data .....	42
IV. EIA Information.....	52
Section 3: All-Star Lineup .....	56
<b>Chapter 4: Recommendations</b> .....	58
Appendix 1: Development of Daily Fines and the International Experience with Information Disclosure .....	59
Appendix 2: Assessment Standards .....	65
1. Assessment Criteria Summary .....	65
2. Assessment Methodology Summary .....	67
Appendix 3: Graph of Annual Scores for Provincial Cities.....	69
Appendix 4: Graph of PITI Partner-Assessed Cities.....	78



# New Mindsets, Innovative Solutions

## Foreword

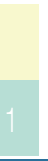
The 2015 Pollution Information Transparency Index (PITI) assessment marks a significant milestone in pollution information disclosure in China. In the past six years, after the publication of the first PITI report in 2009, we have seen a gradual change in both governmental and public opinion on the importance of pollution information transparency. This year, we can safely assert that what we are observing is no longer a ‘trend,’ but a novel paradigm shift.

What exactly is this paradigm shift—the ‘new mindset’—that we are observing?

Information transparency on pollutants and pollutant sources is now seen as more than just a request from citizens to satisfy their right to know about pollutants and other environmental hazards. Instead, public information disclosure is increasingly valued by the government as a strategy to engage people of all backgrounds to actively participate in, and collaboratively work towards, pollution reduction. In short, pollution information disclosure is helping translate what were merely ideas on reducing pollution into discernable action.

A noteworthy example of how this new ‘mindset’ has been translated into concrete action throughout the country can be seen in this year’s PITI city rankings. For the first time in six years, there have been changes in the top ranks of the PITI index. Wenzhou (Zhejiang Province) has leapt to the front of the index with 69.3 points. What is more striking, however, is that Yantai and Qingdao (Shandong Province) are ranked third and fifth, respectively. Upon publication of our report, cities from Shandong Province have rapidly ascended through the ranks. This year, while cities from the Southeastern coast of China had impressive scores as usual, they did not dominate the ranks of the index. Zhejiang Province and Shandong Province are now equally ranked as the most impressive regions on the PITI index.

At a national level, this paradigm shift has also helped increase awareness of the importance of public information disclosure. This year, Minister Chen Jining, of the Ministry of Environmental Protection (MEP), raised the topic of public information disclosure during the press conference of the Lianghui (the annual dual meetings of the National People's Congress & the Chinese People's Political Consultative Conference). He emphasized that information on all pollution sources should be completely disclosed. Furthermore, Minister Chen stressed that all citizens should have the opportunity to monitor pollution and pollution-sources. Vice Minister Pan Yue, of the MEP, called for monitoring strategies rooted in “digital-age thinking” to further emphasize the Ministry’s commitment to information transparency. He emphasized the need for the timely development of Internet-based tools to facilitate comprehensive information disclosure, as well as collaboration with the general public on pollution monitoring activities.



A flurry of environmental laws, regulations and MEP requirements related to information disclosure has been passed recently. In April 2014, the National People's Congress approved the newly revised Environmental Protection Law. In January 2015, Hebei province instituted the "Hebei Province Public Participation Regulations in Environmental Protection." This April, the MEP required local governments to release a full draft of environmental administrative penalties within 20 working days. In June of this year, the MEP primarily utilized Weibo and Weixin (Wechat) to publicize its environmental communication and education initiatives. One month later, in July, the MEP issued the "Measures for Public Participation in Environmental Protection (Trial Version)."

For Shandong Province and Zhejiang Province's EPD at the provincial and city level, public disclosure of information is no longer merely a job requirement to be met by higher-level officials, or just satisfying the public's right to know. Presently, public disclosure of information is seen as a strategy to engage people of all backgrounds to actively contribute to pollution reduction efforts. With a heightened awareness of these new developments, government officials in Shandong and Zhejiang have not only turned ideas into concrete action, but have also implemented innovative initiatives in reducing pollution. This new consciousness has paved the way for future progress.

# Executive Summary

Since 2009, the Institute for Public & Environmental Affairs (IPE) and the Natural Resources Defense Council (NRDC) have assessed the performance of China's key cities in disclosing information on pollutants and pollution sources. Keeping in line with reports from previous years, this current assessment uses improved metrics that IPE and the NRDC have upgraded in accordance to international standards. Our report covers 120 of the country's key cities.

This year's PITI assessment criteria were developed under the pretext of the new Environmental Protection Law, which stipulates that citizens, corporations, and other organizations are legally entitled access to information about the environment, as well as the right to participate in supervising environmental protection efforts.

Our evaluation reveals that there has been notable progress made in pollution-source information disclosure. However, there still remains room for improvement.

## Notable Progress

The most noticeable area of improvement in our current assessment is that for all 120 cities evaluated across the country, there has been a significant expansion in pollution-source information disclosure.

The average score across all 120 cities for pollution-source information disclosure during our last assessment period was 28.5 points. In this assessment period, the average score increased to 44.3 points. Of the 120 cities evaluated, the scores for Benxi (a prefecture level city in Liaoning Province), Karamay City (a prefecture level city in Xinjiang), and Daqing (a prefecture level city in Heilongjiang Province) have declined, while the remaining cities all have scores that have improved from our previous assessment. Cities that have scored a ten-point or higher increase represent 79.2% of the total cities evaluated.

Compared against the results of the 2013-2014 assessment report, eight out of nine total evaluation criteria have higher scores this year.<sup>1</sup> The evaluation criteria with the largest point increases include: "Information Disclosure upon Public Request," "Key Polluter Emission Data Disclosure of Information from Environmental Impact Assessments (EIA)," and "Corporate Self-Monitoring Information Disclosure."<sup>2</sup> A unified information-publishing platform established by the provincial Environmental Protection Departments in Guangdong and Shandong province has played a key role in improving the scores of some cities regarding self-monitoring information disclosure, key polluters' emission data disclosure, and the daily violation records publication.

---

1. "Clean Production Audit Disclosure" was the only subcategory score that experienced a decrease in this assessment.

2. The upgrade of "Information Disclosure upon Public Request" happened in part because of the increased communication efforts between assessment groups and EPBs, which resulted in more replies from the public. For more information please refer to Chapter 3, Interactive Responses.

The second most noticeable area of improvement in the assessment was the rapid ascent of Shandong Province in the PITI rankings. In the past four reporting periods, the average score of assessed cities from Shandong Province resulted in a rank in the index that hovered around 9th place to 13th place. However, last year, Shandong's average score ranked 5th. This year, the province leapt up even further to the number two spot on the PITI index. The across-the-board improvements in Shandong's ten evaluated cities have challenged the assumption that China's powerhouse Southeastern Coast is a region in a league of its own. Instead, with Shandong Province's strong performance, there now exists a figurative bridge between the northern and southern regions of China, linking Shandong and Zhejiang as models of environmental information disclosure.

Improvements in Shandong's public information disclosure can be largely attributed to the provincial environmental protection department's strong push for such changes across the province. Consequently, the improvements in Shandong are not only circumscribed to the PITI assessed cities, but also to other cities in the province.

For example, Linyi City (a city that is not on the list of the key 120 cities surveyed by IPE, but was surveyed nonetheless because IPE wanted to investigate how the city was doing after the city closed many heavy-polluting factories), recently drew public attention because of its strict enforcement of environmental regulations; the city could score 69.1 points if assessed by our index. With this score, the city could have been ranked second on this year's index. If Linyi's scores were included in the calculations for Shandong Province, then Shandong Province would have overtaken Zhejiang Province in the index as the highest-ranked province for information disclosure in the country.

Third, another noteworthy development is the advantageous exploration of innovative solutions. Several examples of these methods can be found below:

This report will summarize how Shandong Province used a "Dual Platform" (shuangshai) method to announce routine environmental violations and enforcement efforts. In Guangdong Province, the provincial government has built a "Report on Administrative Penalties" platform to present an itemized list of administrative penalties from various regions in the province, allowing the general public to easily inquire into and monitor environmental violations. Hunan Province introduced public participation and consulted public opinion on the province's "Corporate Environmental Rating" assessment, and also invited environmental organizations to be involved in oversight while the government evaluates the green credit score of enterprises that are seeking to increase their credibility. Across China, government Weibo accounts have been created to handle online complaints related to the environment. The "Shandong Environmental Affairs Weibo Blogging System" and the "Yinchuan Governmental Affairs Cloud System" stand out as notable examples. In Tianjin's Economic Development Area (TEDA), the TEDA local government is using an experimental PRTR (Pollution Release and Transfer Register) system to push industries within the area to develop voluntary environmental public information disclosure practices.



## Key Shortcomings

**While there have been overall improvements in information transparency disclosure, a key shortcoming is that out of a 100-point scale, the current period's average score is still only 44.3, which illustrates that there still remains significant room for improvement.**

Scores for routine supervision record disclosure and Enterprise Environmental Credit Ratings were relatively low. These programs fall directly under the jurisdiction of the provincial and local governments' environmental departments, as such, these programs should—and could—have been better executed.

Moreover, many of the cities surveyed have incomplete disclosure of their daily violation records. The average score in this category is 9.775 points out of 23 points (calculated in percentages, the average score for the 120 cities was a 42.5% out of 100%). In addition, the environmental protection departments of only thirteen provinces developed corporate environmental performance ratings.

**A second key shortcoming is that there still exists room for improvement in how enterprise emissions data and Environmental Impact Assessment (EIA) data are released to the public.**

What's more, progress in publishing enterprise emissions data is slow. Many companies consistently fail to disclose their emissions data, especially data on toxic and hazardous chemical emissions.

In many regions, the results of EIAs are not fully disclosed and thus are not able to fully inform stakeholders affected by an EIA, making it challenging for them to participate in any decision-making process. The reasons for incomplete disclosure of EIA reports include: a restrictive time period for EIA report disclosure, a limited, select population having access to the information, and a lack of redress channels.

One of the critical reasons for the long-drawn-out improvement in disclosing information on toxic and hazardous chemicals, as well as making EIA reports fully accessible, is that many local environmental protection bureaus (EPBs) simply follow the basic mandatory disclosure requirements regarding enterprise emissions data and EIA reports, rather than establishing a mechanism and unified platform that can allow companies to disclose enterprise emissions data and publish EIA reports easily.

**A third critical shortcoming is that many local EPBs have not been able to communicate or collaboratively engage with the general public on the basis of information disclosure.**

While steps have been taken to improve communication channels with the public, there is still more to be done. For example, 156 EPBs have created Weibo accounts dedicated to handling environmental affairs. Out of the 156 accounts, 70 accounts respond to environmental complaints and reports from the public through Weibo. These accounts are primarily based in Shandong Province, Zhejiang Province, and Jiangsu Province. Only 36 out of 156 accounts release environmental supervision information. 27 accounts are not updated frequently, or are updated so infrequently that they are considered “zombie Weibo accounts.” A large number of municipal environmental bureaus have yet to create Weibo accounts, having not yet seized the opportunity to capitalize on the new avenues of communication and interaction that social media provides.

# Policy Recommendations

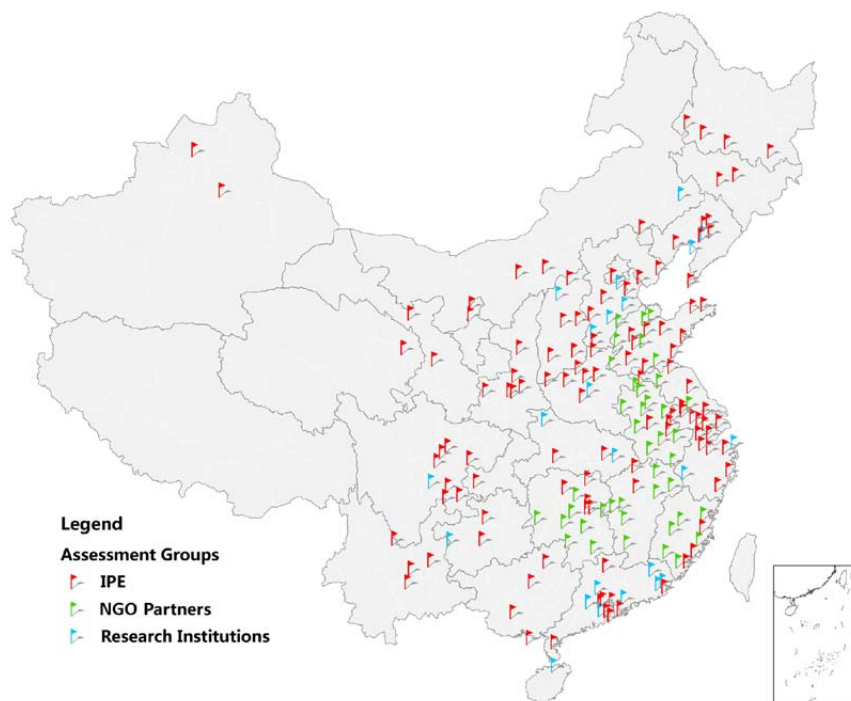
The Environmental Protection Law (EPL), which took effect on January 1, 2015, has a chapter dedicated to “Information Disclosure and Public Participation.” In reference to this section, we recommend the following policies:

- 1. Local EPBs recognize the importance of public information disclosure.** Aside from simply meeting the requirements of the law and directives set forth by higher-level bureaus in government, fulfilling public’s right to know, the EPBs should take advantage of how public information disclosure can be an important strategy in environmental monitoring. Public information disclosure can mobilize individuals from all backgrounds in society to participate in, and collaboratively push for, pollution reduction.
- 2. Local EPBs further develop a unified information platform, which will facilitate comprehensive, timely, and complete information dissemination.** A unified platform for information disclosure will also make it convenient for the general public to access and to use.
- 3. Local EPBs strategically utilize new media, which will allow the public to conveniently access information from mobile platforms, such as popular social media sites Weibo and Wechat.** This will help social media sites and government departments develop a collaborative relationship on the basis of information disclosure, since social media sites can help governmental departments better engage the public to uphold environmental enforcement.
- 4. Local EPBs push strongly for the improvement of pollution information disclosure,** which will facilitate public participation, as well as provide a data-driven statistical basis for green loans, green securities, environmental liability insurance, sustainable supply chain analyses, and other green economic and financial policies.
- 5. Environmental protection departments and bureaus strongly encourage enterprises to play a greater role in pollutant information disclosure.** This will allow enterprises to develop a sense of environmental responsibility and social responsibility, improve their ability to communicate with the public, and achieve self-driven reduction in pollution.

# Chapter 1 Assessment Scope, Objectives and Methodology

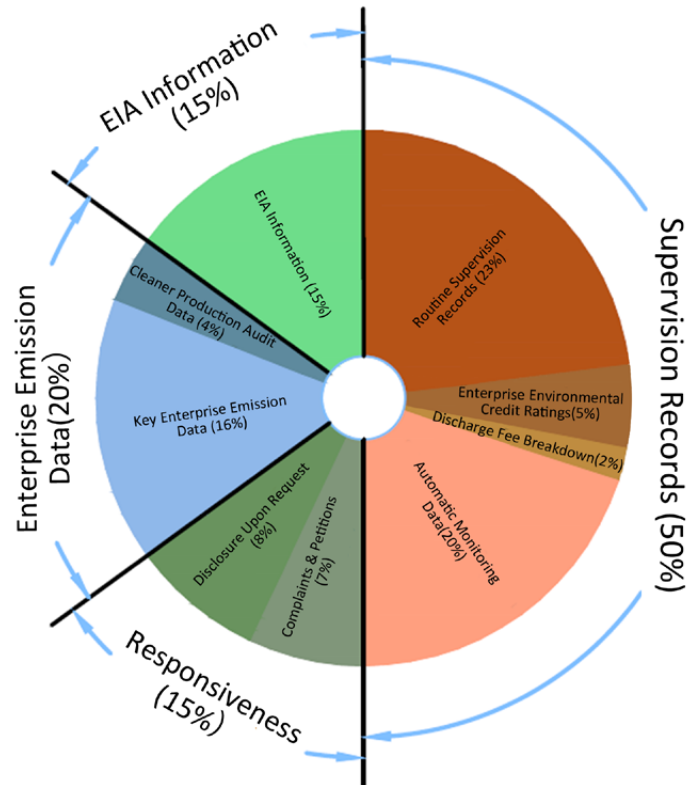
In this PITI assessment we have continued to analyze the same 120 cities that were included in last year's evaluation. Our partner organizations include Green Anhui, Green Qilu of Shandong province, Green Hunan, Nanjing Green Stone, and Green Home of Fujian province. These organizations have helped to apply the PITI evaluation standard to the cities assessed within their respective provinces. Newcomers include Green Nanchang (Nanchang Qinggan), who joined the PITI assessment to evaluate cities within Jiangxi province. Nanjing University also selected 25 cities nationwide for analysis using PITI methodology. (Note: Due to the success of the PITI evaluation process, in the report's 6th year, Nanjing University decided to use PITI metrics to conduct an independent analysis of other Chinese cities that were not included in the original list of 120 key cities). In sum, there were an additional 71 cities assessed besides the original 120 PITI cities; this brings the total number of cities included in this year's assessment to 191. (i.e. 191 cities were evaluated according to PITI standards, however, the 120 key cities were evaluated by IPE and NRDC. These cities are flagged in red in Figure 1-1.)

Figure 1-1: Distribution of PITI Evaluation Sites



With the exception of “Self-monitoring Information Disclosure,” this year’s assessment target used the same evaluation criteria as 2014. Data was collected from the end date of the previous report to the end of February 2015. The data for “Online Monitoring Disclosure,” was based on the December 2014 publication status of provincial self-monitoring information from IPE’s Blue Map app.

Figure 1-2: Assessment Scope and Score Distribution

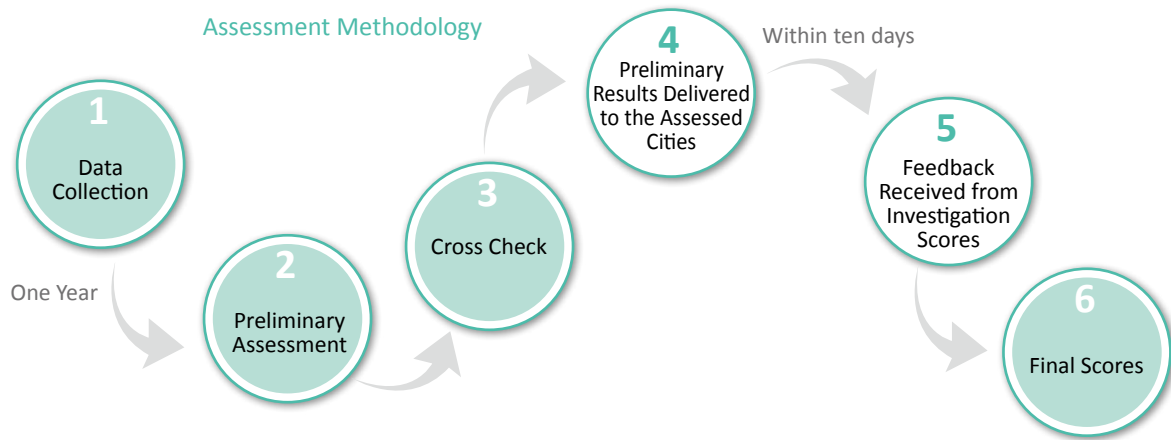


The PITI assessment includes environmental information published by the Environmental Protection Bureaus (EPB) of each respective city, as well as data acquired from information disclosure upon request. Before conducting the assessment, the evaluation team made requests for information disclosure to the local EPBs of all cities included in the assessment. The status of disclosure upon request was assessed in accordance to communication and feedback from the local EPBs. Eleven cities sent responses and feedback for initial assessment results; Wuhan’s EPB took a close look at the PITI metrics and discussed the assessment for each indicator with the evaluation team.

As shown in Figure 1-3, the evaluation process is as follows:

1. Pollution-source data is collected
2. A preliminary assessment is conducted
3. The data is cross checked amongst evaluation groups
4. Feedback is sought from the local EPBs assessed
5. Adjustments are made based on verification of the feedback
6. The final evaluation results and score are compiled and published.

Figure 1-3: Evaluation Process



# Chapter 2 Assessment Results

## Section 1: Overall Scores and Rankings

Figure 2-1 2014-2015 PITI Assessment Results and Rankings for 120 Cities

Rank	City	Total	Rank	City	Total	Rank	City	Total
1	Wenzhou	69.3	41	Guiyang	50.5	81	Luzhou	37.5
2	Ningbo	69.1	42	Baoji	50.2	82	Yichang	37.3
3	Yantai	68.9	43	Zhengzhou	49.9	83	Zigong	37.3
4	Beijing	67	44	Beihai	49.5	84	Jinzhou	36.8
5	Qingdao	66.8	45	Yangzhou	49.3	85	Jinchang	36.7
6	Lianyungang	66.6	46	Hohhot	48.9	86	Zhanjiang	36.5
7	Nanjing	66.5	47	Foshan	48.5	87	Anshan	36.4
8	Hangzhou	65.2	48	Nanning	48.3	88	Chifeng	36.3
9	Shanghai	64.6	49	Shijiazhuang	48.2	89	Jingzhou	36.3
10	Jinan	64.5	50	Chengdu	47.9	90	Jiaozuo	35.9
11	Yancheng	63.8	51	Handan	47.8	91	Zhuzhou	35.8
12	Zibo	62.5	52	Changsha	47.7	92	Shizuishan	35.7
13	Nantong	62.3	53	Shenzhen	47.6	93	Mudanjiang	35.5
14	Xiamen	62.3	54	Yinchuan	47	94	Luoyang	34.2
15	Weihai	62.1	55	Zunyi	46.6	95	Yanan	33.4
16	Jining	60.7	56	Nanchang	46.1	96	Urumqi	33.3
17	Suzhou	60.3	57	Guangzhou	46	97	Qinhuangdao	32.4
18	Zhenjiang	60.2	58	Erdos	45.6	98	Yangquan	32.4
19	Hefei	60.1	59	Tangshan	44.7	99	Zhangjiajie	31.6
20	Taizhou	59.4	60	Jiujiang	43.3	100	Deyang	31.4
21	Quanzhou	58.8	61	Tianjin	43.2	101	Zhuhai	30.5
22	Weifang	58.5	62	Lanzhou	43.1	102	Fushun	30.4
23	Jiaxing	55.5	63	Xianyang	43	103	Kaifeng	30.3
24	Fuzhou	55.4	64	Weinan	42.6	104	Kunming	30.2
25	Zaozhuang	55.1	65	Dalian	42.4	105	Qiqihar	29.4
26	Tai'an	54.6	66	Baotou	42.2	106	Tongchuan	29.2
27	Wuxi	54.3	67	Changde	41.4	107	Qujing	28.8
28	Ma'anshan	54	68	Guilin	41.1	108	Nanchong	27.8
29	Huzhou	53.6	69	Mianyang	41.1	109	Taiyuan	26.8
30	Shenyang	53.5	70	Zhongshan	40.4	110	Shantou	26.2
31	Yueyang	52.6	71	Rizhao	40.1	111	Panzhuhua	24.6
32	Dongguan	52.6	72	Yibin	39.8	112	Pingdingshan	22
33	Changzhou	52.5	73	Chongqing	39.7	113	Yuxi	21.8
34	Wuhan	52.4	74	Liuzhou	39.5	114	Xining	21.7
35	Shaoxing	52.1	75	Harbin	39.4	115	Datong	20.5
36	Baoding	51.6	76	Anyang	39.3	116	Shaoguan	20
37	Wuhu	51.4	77	Changzhi	39	117	Linfen	19.4
38	Xian	51.2	78	Sanmenxia	38.9	118	Karamay	19.2
39	Xiangtan	50.6	79	Jilin	38.6	119	Daqing	17.1
40	Xuzhou	50.6	80	Changchun	37.9	120	Benxi	16.8

Figure 2-2 2014-2015 PITI Assessment Results Including Subcategories for 120 Cities

Rank	City	Total	Supervision Records (50 points)				Responsiveness (15 points)		Enterprise Emission Data (20 points)		EIA Information (15 points)
			Routine Supervision Records (23 points)	Enterprise Environmental Credit Ratings (5 points)	Discharge Fee Breakdown (2 points)	Automatic Monitoring Data (20 points)	Complaints & Petitions (7 points)	Disclosure Upon Request (8 points)	Key Enterprise Emission Data (16 points)	Cleaner Production Audit Data (4 points)	
1	Wenzhou	69.3	18.4	4.6	1.9	18	5.6	7.8	3.2	1.4	8.4
2	Ningbo	69.1	18.4	2	1.9	18	6.6	8	3.2	1.4	9.6
3	Yantai	68.9	15.2	0	1.3	20	6.6	7.2	8.4	2.6	7.6
4	Beijing	67	21.4	1	1.4	12	6.4	8	6.4	1.4	9
5	Qingdao	66.8	18.4	0	1.6	20	6.6	8	8.4	1.4	2.4
6	Lianyungang	66.6	17.6	3.6	1.6	12	5.6	8	9.2	1.4	7.6
7	Nanjing	66.5	13	4.6	1.5	16	6.6	7.2	7.2	1.4	9
8	Hangzhou	65.2	16.8	4	1.6	18	4.8	7.2	4.4	1.4	7
9	Shanghai	64.6	15.2	1	1.6	18	5.6	7.2	9.6	1.4	5
10	Jinan	64.5	18.4	0	1.7	20	6.4	4.8	6.4	1.4	5.4
11	Yancheng	63.8	13.6	2.8	0	16	5.6	6.8	7.2	1.4	10.4
12	Zibo	62.5	15.2	0	1.7	20	4.2	7.2	5.2	1.4	7.6
13	Nantong	62.3	13	4.4	1.3	16	5.6	7.2	5.2	1.4	8.2
14	Xiamen	62.3	19.8	0	1.5	17	5.6	8	3.2	1.2	6
15	Weihai	62.1	13.8	0	1.3	20	6.4	6.8	6.4	1.4	6
16	Jining	60.7	12.2	0	1.5	20	3.6	7.6	8.4	1.4	6
17	Suzhou	60.3	13	3.6	1.7	16	6.4	8	9.2	1.4	1
18	Zhenjiang	60.2	13	2.8	1.4	12	6.4	7.8	7.2	1.4	8.2
19	Hefei	60.1	9.2	1	1.7	16	6.6	8	8	1.4	8.2
20	Taizhou	59.4	9.2	4.6	1.8	18	3.4	6.2	6.4	1.4	8.4
21	Quanzhou	58.8	13.8	0	1.6	17	6.4	8	3.2	1.2	7.6
22	Weifang	58.5	12.2	0	1.5	20	2.8	7.2	8.4	1.4	5
23	Jiaxing	55.5	13.8	1.8	1.7	18	6	7	0	1.2	6
24	Fuzhou	55.4	9.2	0	1.6	17	6.6	7.2	6.4	1.4	6
25	Zaozhuang	55.1	13.8	0	1.1	20	2.6	4.6	7.2	1.4	4.4
26	Tai'an	54.6	15.2	0	1	20	4.2	4.4	8.4	1.4	0
27	Wuxi	54.3	16.8	4.2	1.3	12	3.8	7.2	5.2	1.4	2.4
28	Ma'anshan	54	9.2	2.8	1.6	19	6.6	1	4	1.4	8.4
29	Huzhou	53.6	18.4	1	0	18	1.4	0.6	6.8	1.4	6
30	Shenyang	53.5	13	2.8	0.7	16	6.2	6.2	3.2	2	3.4
31	Yueyang	52.6	13.6	2	1	12	5.6	8	3.2	1.2	6
32	Dongguan	52.6	21.4	3.6	1.6	4	6.6	8	0	1.4	6
33	Changzhou	52.5	9.2	4.6	1.7	12	6.4	8	5.2	1.4	4
34	Wuhan	52.4	9.2	0	1.8	17	6.6	7.6	3.2	1.4	5.6
35	Shaoxing	52.1	18.4	1	1.9	18	4.8	1.4	4.4	1.2	1
36	Baoding	51.6	11.4	0	1.6	16	2.6	6.6	3.2	1.4	8.8
37	Wuhu	51.4	4.6	0	0	16	6.4	8	6.8	1.2	8.4
38	Xi'An	51.2	9.2	0	0.8	17	6.4	4.8	3.2	1.4	8.4
39	Xiangtan	50.6	13	1.8	1.6	12	6.4	6.4	3.2	1.2	5
40	Xuzhou	50.6	9.2	2.8	1	12	2.8	6	6.4	1.4	9

Rank	City	Total	Supervision Records (50 points)				Responsiveness (15 points)		Enterprise Emission Data (20 points)		EIA Information (15 points)
			Routine Supervision Records (23 points)	Enterprise Environmental Credit Ratings (5 points)	Discharge Fee Breakdown (2 points)	Automatic Monitoring Data (20 points)	Complaints & Petitions (7 points)	Disclosure Upon Request (8 points)	Key Enterprise Emission Data (16 points)	Cleaner Production Audit Data (4 points)	
41	Guiyang	50.5	4.6	0	1.5	18	1.4	5.6	8.4	1.2	9.8
42	Baoji	50.2	13.8	0	0	17	5.6	5.2	3.2	1.4	4
43	Zhengzhou	49.9	9.2	0	1.3	12	5	7.6	6.4	1.4	7
44	Beihai	49.5	13	0	1.3	11	5.6	7	3.2	1.4	7
45	Yangzhou	49.3	9.2	2	1.7	12	6.4	7	5.2	1.4	4.4
46	Hohhot	48.9	9.2	0	1.3	18	3.8	1.2	6.4	1.4	7.6
47	Foshan	48.5	19.8	2	1.5	4	4.2	8	0	1.4	7.6
48	Nanning	48.3	13	0	1.7	11	5.2	5.2	3.2	1.4	7.6
49	Shijiazhuang	48.2	9.2	0	1.4	16	6	0.8	8.4	1.4	5
50	Chengdu	47.9	9.2	0	1.3	12	6	4.8	5.6	1.4	7.6
51	Handan	47.8	9.2	0	1.6	12	4.8	7	3.2	2.4	7.6
52	Changsha	47.7	12	1	1.5	12	4.2	7.2	3.2	1.2	5.4
53	Shenzhen	47.6	18.4	1	1.8	4	6.6	4.8	0	1.4	9.6
54	Yinchuan	47	9.2	0	1.6	17	6	6.4	6.8	0	0
55	Zunyi	46.6	4.6	0	1.6	18	6.2	7.6	7.2	1.4	0
56	Nanchang	46.1	4.6	0	1.5	19	3.4	4.8	6.4	1.4	5
57	Guangzhou	46	19	2.6	1.6	4	6.2	6.2	0	0	6.4
58	Erdos	45.6	9.2	0	0.2	16	1.4	7.2	3.2	1.4	7
59	Tangshan	44.7	4.6	0	1.7	12	4.2	6.8	6.4	1.4	7.6
60	Jiujiang	43.3	4.6	0	0.9	19	2.8	1	8.4	0	6.6
61	Tianjin	43.2	9.2	1	1.4	10	1.4	8	6.8	1.4	4
62	Lanzhou	43.1	9.2	0	1.3	12	6.6	7.2	5.6	1.2	0
63	Xianyang	43	4.6	0	1.4	17	1.4	7	3.2	1.4	7
64	Weinan	42.6	9.2	0	1.4	17	2.6	8	3.2	1.2	0
65	Dalian	42.4	9.2	0	1	12	1.4	7.2	3.2	1.4	7
66	Baotou	42.2	9.2	0	0.2	12	0	6.8	6.4	1.4	6.2
67	Changde	41.4	4.6	2.8	0	16	2.8	4.8	3.2	1.2	6
68	Guilin	41.1	4.6	0	1.7	14	1.4	0.8	5.2	3.6	9.8
69	Mianyang	41.1	4.6	0	1.3	12	4.8	5.6	4.4	1.4	7
70	Zhongshan	40.4	14.4	2	1.6	4	5.6	6.8	0	0	6
71	Rizhao	40.1	9.2	0	1.1	19	6.6	0.6	0	1.4	2.2
72	Yibin	39.8	4.6	0	1.8	8	4.2	5.4	5.6	1.2	9
73	Chongqing	39.7	4.6	0	1.3	4	6.4	8	6.4	1.4	7.6
74	Liuzhou	39.5	13	0	1.7	8	5.6	1	3.2	0	7
75	Harbin	39.4	9.2	0	1.2	4	1.4	5.8	8	1.4	8.4
76	Anyang	39.3	8.4	0	1.3	8	2.8	8	4.4	1.4	5
77	Changzhi	39	9.2	0	0.4	4	6.4	5.4	6.8	1.4	5.4
78	Sanmenxia	38.9	12.2	0	1.7	8	4.2	0	5.6	1.2	6
79	Jilin	38.6	4.6	0	0.8	14	0	8	6.8	1.4	3
80	Changchun	37.9	4.6	0	1.5	16	4.6	4.2	5.6	1.4	0



Rank	City	Total	Supervision Records (50 points)				Responsiveness (15 points)		Enterprise Emission Data (20 points)		EIA Information (15 points)
			Routine Supervision Records (23 points)	Enterprise Environmental Credit Ratings (5 points)	Discharge Fee Breakdown (2 points)	Automatic Monitoring Data (20 points)	Complaints & Petitions (7 points)	Disclosure Upon Request (8 points)	Key Enterprise Emission Data (16 points)	Cleaner Production Audit Data (4 points)	
81	Luzhou	37.5	4.6	0	1.7	8	4.4	4.2	6.8	1.4	6.4
82	Yichang	37.3	4.6	0	1.7	17	5.6	4	4.4	0	0
83	Zigong	37.3	4.6	0	1.3	8	5.6	5.2	4.4	1.2	7
84	Jinzhou	36.8	9.2	0	1.4	8	4.4	7	0	1.4	5.4
85	Jinchang	36.7	4.6	0	1.7	12	5.6	4.8	6.8	1.2	0
86	Zhanjiang	36.5	9.2	2	1.7	4	6.4	7.2	0	0	6
87	Anshan	36.4	9.2	0	0	12	1.4	7	0	1.4	5.4
88	Chifeng	36.3	9.2	0	1.5	16	1.4	0.8	3.2	1.2	3
89	Jingzhou	36.3	4.6	0	1.7	17	6.4	5.6	0	0	1
90	Jiaozuo	35.9	9.2	0	1.7	8	6.6	6	3.2	1.2	0
91	Zhuzhou	35.8	4.6	1	1.6	16	5	1	0	1.2	5.4
92	Shizuishan	35.7	7.6	0	1.3	17	0	0	6.8	0	3
93	Mudanjiang	35.5	9.2	0	1.3	4	6.6	7	0	1.4	6
94	Luoyang	34.2	4.6	0	0.2	16	4.2	4.8	3.2	1.2	0
95	Yanan	33.4	4.6	0	0	17	1.4	1	3.2	1.2	5
96	Urumqi	33.3	9.2	0	1.5	11	1.4	4.6	3.2	1.4	1
97	Qinhuangdao	32.4	9.2	0	1	12	4.6	1	3.2	1.4	0
98	Yangquan	32.4	13	0	1.4	4	5.2	0.6	6.8	1.4	0
99	Zhangjiajie	31.6	4.6	2.8	1.4	12	2.6	1	0	1.2	6
100	Deyang	31.4	4.6	0	1.6	8	1.4	3.6	3.2	1.4	7.6
101	Zhuhai	30.5	4.6	0	1.7	4	5.6	4.8	0	1.4	8.4
102	Fushun	30.4	2.8	0	0	16	2.6	0.4	3.2	1.4	4
103	Kaifeng	30.3	9.2	0	1.5	8	0	6	4.4	1.2	0
104	Kunming	30.2	4.6	0	0	7	6.4	0.6	5.6	0	6
105	Qiqihar	29.4	4.6	0	1.2	4	6.4	0.4	3.2	1.2	8.4
106	Tongchuan	29.2	9.2	0	0	8	3.8	1	3.2	0	4
107	Qujing	28.8	6.8	0	0	4	4.2	7.2	5.6	0	1
108	Nanchong	27.8	4.6	0	0	8	5.6	5.2	4.4	0	0
109	Taiyuan	26.8	4.6	0	1.4	4	6.4	0.4	5.6	0	4.4
110	Shantou	26.2	7.6	1.6	1.6	4	2.8	7.2	0	1.4	0
111	Panzhihua	24.6	4.6	0	1.6	4	2.8	1	5.6	0	5
112	Pingdingshan	22	9.2	0	0	8	0	0.4	3.2	1.2	0
113	Yuxi	21.8	4.6	0	0	4	0	7.6	5.6	0	0
114	Xining	21.7	7.6	0	0.7	4	3.8	4.2	0	1.4	0
115	Datong	20.5	4.6	0	1.7	4	5	0.8	4.4	0	0
116	Shaoguang	20	4.6	1	0	4	6	3.4	0	0	1
117	Linfen	19.4	4.6	0	1.8	4	1.4	0.8	6.8	0	0
118	Karamay	19.2	2.8	0	0.2	11	0	0.8	3.2	1.2	0
119	Daqing	17.1	4.6	0	1.7	4	1.4	0.8	3.2	1.4	0
120	Benxi	16.8	4.6	0	0	8	1.4	0.4	0	1.4	1

## Section 2: PITI Score Comparison for Similar Districts and Cities

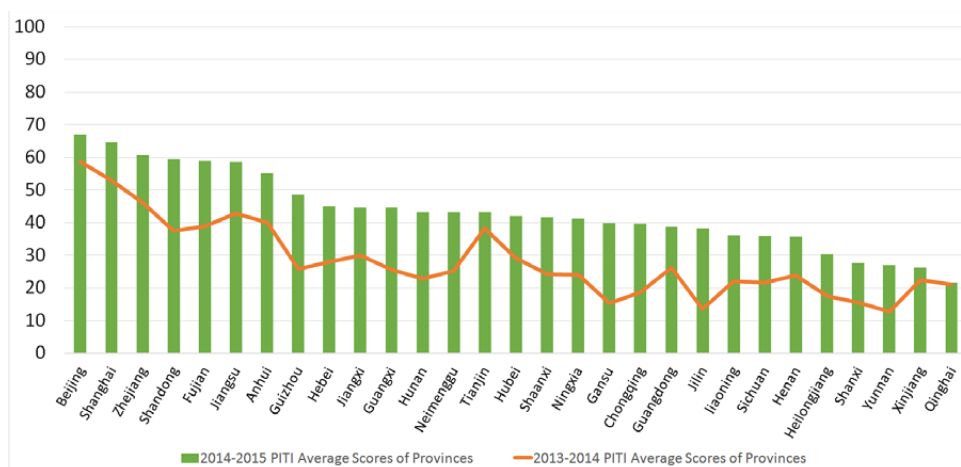
Chinese legislation pertaining to environmental information transparency has continuously been revised and improved since 2013. In response to these changes, NRDC and IPE have incorporated these new legal requirements into upgraded assessment criteria for our PITI assessments. The 2013-2014 report used the upgraded assessment criteria, which resulted in an overall score decline for all areas in the PITI assessment during last year's evaluation period. However, with all provinces moving towards compliance with the new transparency laws in 2014, assessment scores improved impressively. During this assessment only three out of 120 cities experienced a score decrease from the previous year, while all others increased their score. One of the most notable achievements is that 95 cities increased their score by ten points or more. This significant improvement in performance is apparent in the top performing cities: in last year's assessment, Ningbo scored a total of 60 points, while this year 19 cities scored 60 points or higher.

### 1. Comparison of Average Scores Across Provinces

During this assessment period, provincial-level environmental departments created new platforms for effective information disclosure, leading to breakthroughs in several areas including "Routine Environmental Violation Disclosure," "Self-Monitoring Information Disclosure," and "Key Polluting Enterprise Information Disclosure."

This assessment calculated the average score of 29 different provinces according to the scores of each city within the separate provinces.<sup>3</sup> Beijing is ranked first, at 67 points, followed by Shanghai with 64.6 points. Zhejiang incorporated seven cities into their assessment, with an average score of 60.6 points. Shandong incorporated ten cities into the assessment, scoring an average of 59.4 points. Therefore Zhejiang took third place and Shandong took fourth place within the rankings of all assessed cities.

Figure 2-3 Comparison of Average Annual Scores across Provinces



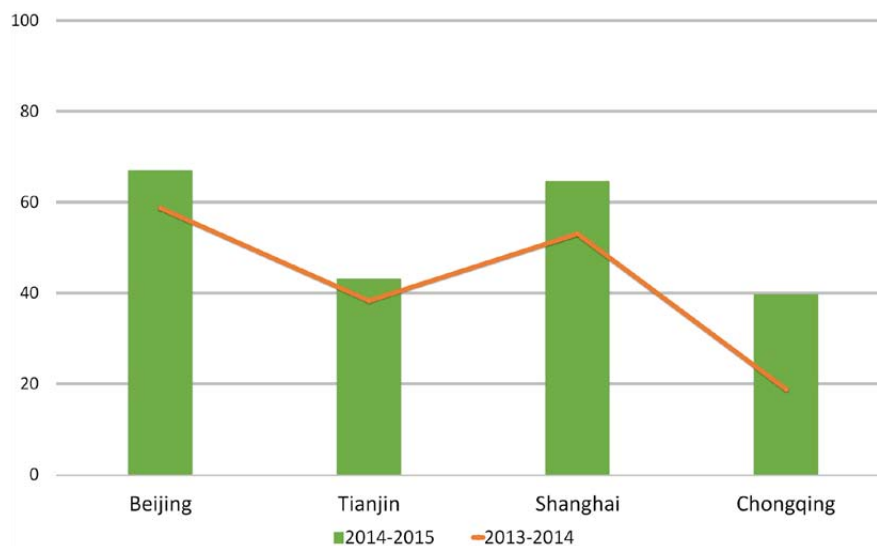
3. This does not include Tibet, Hainan, Hong Kong, Taiwan, or Macau.

## 2. Score Comparison for the Four Municipalities

(Beijing, Shanghai, Tianjin, and Chongqing)

Among the four municipalities directly controlled by the central government, Beijing performed well on “Routine Environmental Violation Disclosure” and “EIA Disclosure” as well as in other categories, contributing to its top-ranked score of 67 points. Chongqing performed poorly on “Routine Environmental Violation Disclosure” with a score of only 4.6 points, as well as on “Self-Monitoring Information Disclosure” with a score of 4 points. The failing scores accounted for 80% of the total scores in these two sub-categories, which contributed to a score of 39.7 points. These factors accounted for Chongqing’s number four ranking among all assessed municipalities.

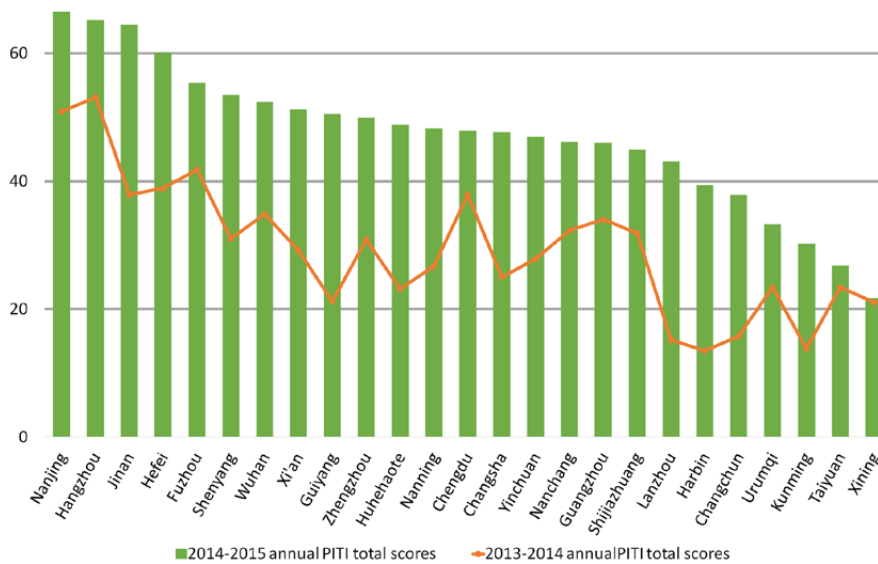
Figure 2-4 PITI Score Comparison for Four Municipalities,



## 3. Score Comparisons for Provincial Capitals

Among the 25 provincial capitals, Nanjing, Hangzhou, Jinan, and Hefei all scored 60 points or higher, thus occupying the top four spots in provincial capitals.

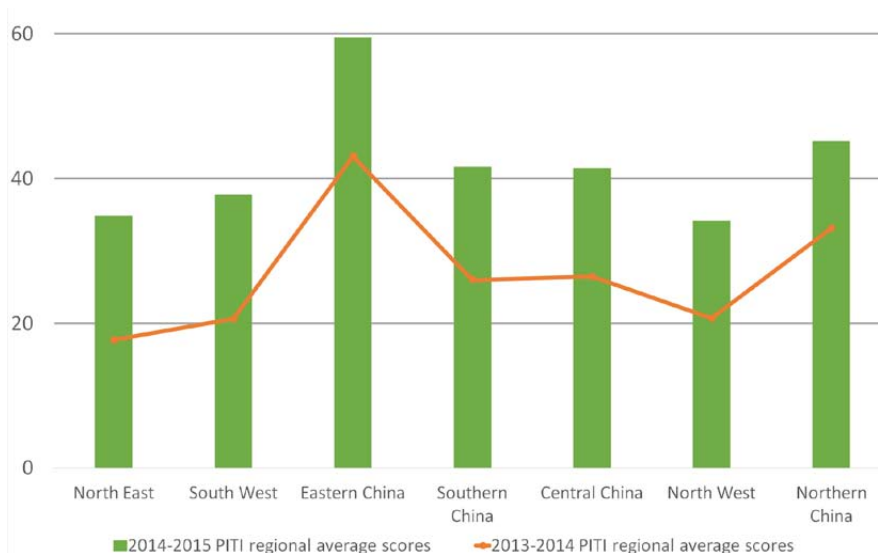
Figure 2-5 Comparison of Average Annual Scores across Provincial Capitals



#### 4. Score Comparison for Major Geographic Areas

Scores from all seven major geographic areas this year showed improvements in public environmental information disclosure. The Eastern region of China also had a score increase of 16.4 from last year's score of 43.1 points, resulting in a total score of 59.5 for this year's assessment. The Northeastern region of China had the greatest improvement with a score increase of 17.2, from 17.7 points last assessment period to 34.9 points this assessment period.

Figure 2-6 Year of 2014-2015 PITI Regional Average Scores



5. For More Information on the Score Comparison for Cities within Provinces, Please Refer to Appendix 3

# Chapter 3 Assessment Findings

## Section 1: Primary Improvements and Shortcomings

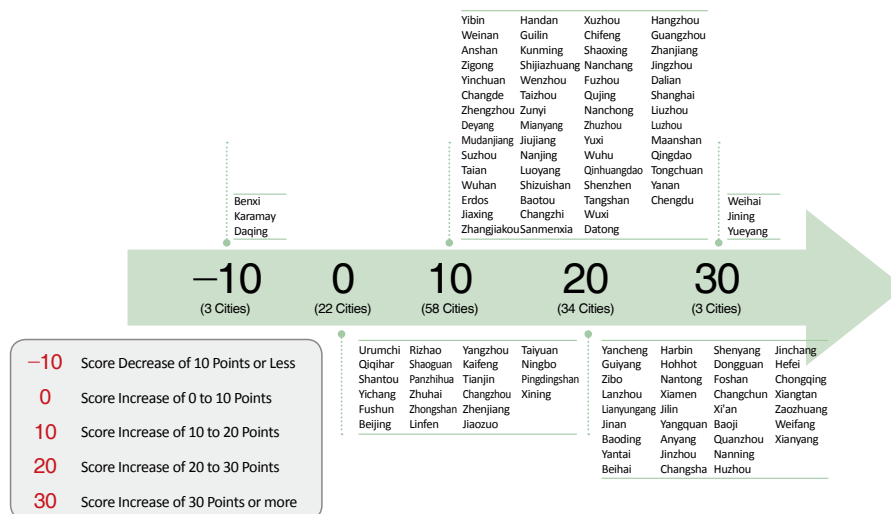
### 1. Key Improvements

#### • Outstanding Improvement in Pollution Source Information Disclosure Scores across 120 Assessed Cities

Nearly every city improved its score during this assessment period. The average score this assessment period was 44.3 points, representing a 55.4% percentage increase from last year’s average score of 28.5 points. Higher scores achieved by individual cities are the source of this widespread improvement in environmental information disclosure average score.

Nearly all of the 120 cities included in this year’s assessment improved their scores, with the exceptions of Benxi, Karamay, and Daqing. Weihai, Jining, and Yueyang all improved their scores by an impressive margin of 30 points or more. In comparison to last year’s assessment, 95 cities increased their scores by a margin of 10 points or more, accounting for 79.2% of the total number of cities evaluated.

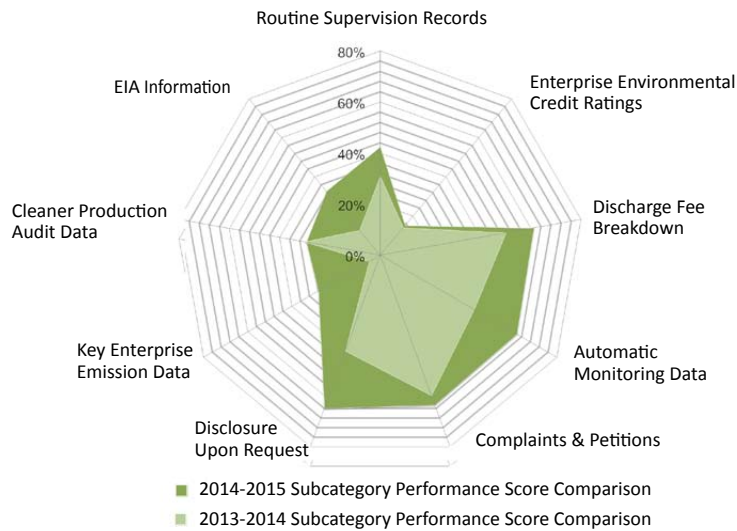
Figure 3-1 Score Increases and Decreases across the 120 Assessed Cities



Holistic improvements within assessment subcategory performance also contributed to the increase in overall average score.

All evaluation criteria except for “Clean Production Audit Disclosure” have experienced score improvements in comparison to the assessment results from the previous year. Categories including “Disclosure upon Public Request,” “Key Pollution Enterprise Information Disclosure,” “Environmental Impact Assessment Publication,” and “Self-Monitoring Information Disclosure” have made notable progress.

Figure 3-2 Subcategory Performance Score Comparison

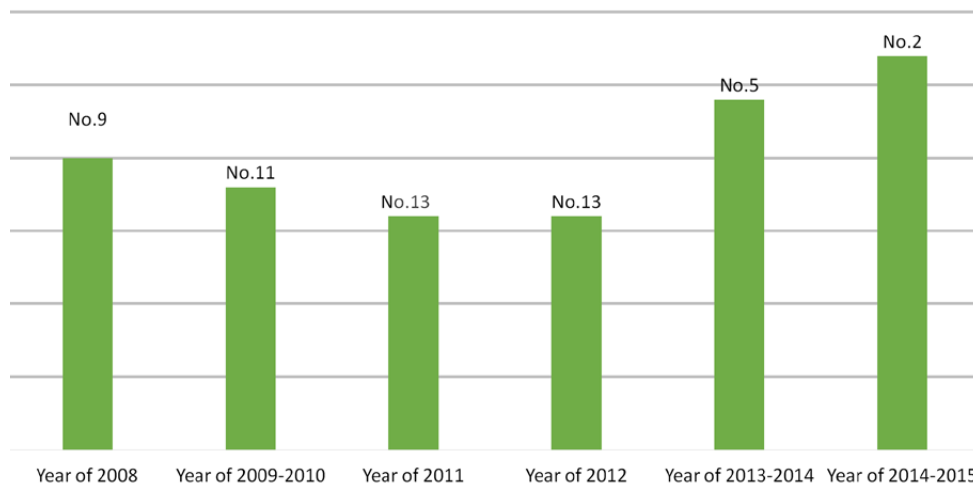


This year’s assessment shows that “Disclosure upon Public Request” had the highest average score among all evaluation criteria. Other criteria including “Environmental Complaint Reporting,” “Self-Monitoring Information Disclosure” and “Pollution Fine Publication” achieved scores of 60% or higher. As most cities have not conducted Enterprise Environmental Credit Ratings, this category has a score of 15.2%, the lowest of all assessment areas. Other low scoring programs included “Environmental Impact Assessment Publication,” “Key Enterprise Data Disclosure” and “Clean Production Audit Disclosure.”

**• Best Practices from Shandong Province, a Game Changer for Public Information Disclosure on China’s Eastern Coast**

Over the past few years of PITI assessments, Shandong’s public information disclosure practices have seen rapid and continuous improvement.

Figure 3-3 PITI Scores for Ten Cities in Shandong: Six- Year Comparison

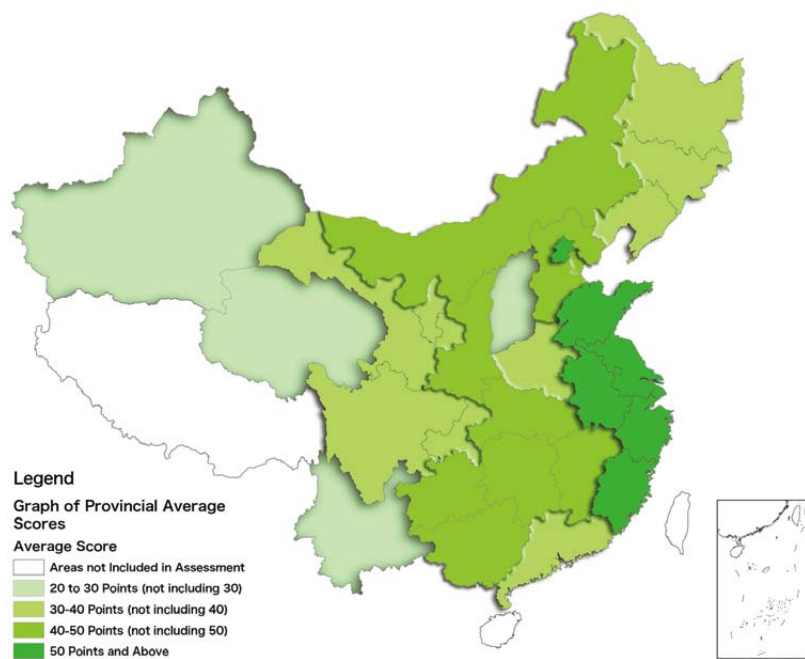


In the current assessment, Shandong Province ranked fifth among all provinces with an average score of 37.4 points, lagging behind top-ranking Zhejiang Province by 8.9 points. The 10 evaluated cities in Shandong Province had an average score of 59.5 points, bringing them to second place in the ranking and only 1.2 points behind top-rated Zhejiang Province.

The Shandong provincial level EPD initiated a push for progress within environmental information transparency that set in motion province-wide improvements in information disclosure practices. As a result, improved scores for information disclosure took place at a larger scale than individual actions from the key cities included in the PITI assessment would have. The Shandong city of Linyi, which has recently attracted a considerable amount of media attention for its strict enforcement of environmental law, demonstrates the wide-reaching nature of this impact. In a test assessment of Linyi which was not included in the 120 assessed cities, IPE discovered that Linyi achieved a score of 69 points. Had Linyi been included in the final PITI assessment, it would have brought Shandong to first place, ahead of Zhejiang province.

Shandong's overall improvement in public information disclosure has brought them to the forefront of best practice in China; bringing them on par with Zhejiang province.

Figure 3-4 Provincial City Average Score



**• A Growing Number of Locations Explore Innovative Mechanisms to Promote Public Information Disclosure**

In this current assessment, many cities have developed innovative ways to improve information disclosure. Notable innovations include Shandong's "Dual Platform" (shuangshai) model for the public disclosure of administrative penalty information, and Guangdong Province's "Administrative Penalty Disclosure" platform which allows the public to easily access administrative penalty information for multiple cities across Guangdong Province. Hunan Province's assessment of "Enterprise Environmental Credit Rating" introduced public participation by soliciting public opinion and inviting environmental organizations to submit their comments during the enterprise

rating promotion evaluation process. Many provinces and cities also opened government backed environmental Weibo (a Chinese blogging platform similar to Twitter) accounts to accept environmental complaint reports online; the “Shandong Environmental Blogging System” and “Yinchuan Government Cloud System” stand out as notable examples. In Tianjin Economic and Technology Development Zone, government officials used the Pollution Release and Transfer Register (PRTR) system to push industries within the zone to develop measures for voluntary environmental public information disclosure.

## 2. Existing Shortcomings

### • Overall Degree of Public Information Disclosure Still Needs to Be Improved

Though there has been notable improvement within environmental information transparency (based on the increase from last year’s average score of 28.5/100 points to this year’s average score of 44.3/100 points), it is apparent that there is still significant room for improvement.

Environmental Protection Bureaus were in charge of producing data for the two lowest assessment categories, “Routine Supervision Records” and “Enterprise Environmental Credit Ratings”. Since the EPBs themselves were responsible for the disclosure of this information, performance within these categories can and should be improved with relative ease. For many cities, the disclosure of “Routine Supervision Records” is still not comprehensive, which contributed to its low score of 42.5%. As only 13 provinces have implemented “Enterprise Environmental Credit Ratings,” performance within this indicator also left much to be desired.

### • Remaining Shortcomings in Effective Disclosure of Enterprise Emission Data and Environmental Impact Assessments

Enterprises have been slow to improve pollutant data disclosure. Many enterprises failed to disclose their emissions data, particularly data on hazardous or toxic pollutants.

Due to a short public comment period, lack of methods for redress, and limited coverage of affected groups, EIA information disclosure remains ineffective in informing affected members of the public.

The effectiveness of the EIA and enterprise self-monitoring disclosure has been limited, primarily because the environmental departments responsible for responding and implementing these information disclosure requirements have only just started to develop these programs. These environmental departments have yet to create a unified platform or management mechanism that will compel industries to come into full compliance with these disclosure requirements.

### • Many Regions Have Not Been Able to Establish Meaningful Communication with the Public on the Basis of Information Disclosure

Even though Weibo accounts have been created by 156 EPBs, only 70 have been used as a platform to respond to environmental complaints online. The majority of these responders were concentrated in top performing provinces, such as Shandong, Zhejiang, and Jiangsu, and a handful of other areas. Of the 156 Weibo accounts, only 36 EPBs disclosed environmental supervision information. 27 of these Weibo accounts are so-called “Zombie Weibos,” since they have never been or are very seldom updated. A large number of EPBs have yet to create Weibo accounts, having not yet seized the opportunity to capitalize on the new avenues of communication and interaction that social media provides.



## Section 2: Assessment Subcategory Evaluation

### I. Disclosure of Pollution Source Supervision Records

#### 1. Disclosure of Routine Supervision Records

During this year's PITI report, the disclosure of Enterprise Routine Supervision Records improved as disclosure methods became more systematized. This new process included the gradual combination of Enterprise Routine Supervision Records into a unified platform as well as the widespread advertisement of Enterprise Routine Supervision Records through a combination of new media channels.

##### 1.1 Key Improvements: Information Disclosure Becomes More Systematized

The results from this current assessment show that the disclosure of Enterprise Routine Violation Records became more systematic. Public information disclosure for pollution source supervision monitoring is a standout example of this improvement. The MEP 2014 Governmental Public Information Disclosure Progress Report stated that the MEP conducted an inspection of pollution source environmental supervision information for “special online columns” (special designated sections that appear on EPB or EPB-related websites, i.e. ‘portlets’) of 22 provincial level EPBs, as well as other related disclosure supervision information.<sup>4</sup> The MEP report revealed that 100% of provincial level environmental departments and 83% of city level EPBs had already set up “special online columns” for information disclosure. The results of this year's PITI assessment showed that 117 out of 120, or 97.5% of all cities evaluated offered these “special online columns.”

Individual provinces also made great strides in improving information disclosure. The Guangdong provincial EPD website data center set up a special column for “Administrative Penalties Information.” The column gathered all instances of city and county-level administrative penalties within Guangdong from July 2008 to the present, collecting a total of 24,635 administrative penalty notices.<sup>5</sup> This achievement represents the formation of an administrative penalty platform that is equipped to combine and present penalty information from various regions as well as provide the public with easy access to information.

4. For further details please refer to: [http://www.gov.cn/zhuanti/2014-12/23/content\\_2795356.htm](http://www.gov.cn/zhuanti/2014-12/23/content_2795356.htm) (accessed July 7th, 2015)

5. The collection deadline was August 3rd, 2015.



disclosure progress reports published by Shandong Province are yet another example of model information disclosure practices from this area. Beginning in March 2014, Shandong Province published a progress report for the implementation of the Shandong Province Regional Air Pollutant Comprehensive Emission Standard across 17 cities. This report included detailed information of each company's pollution control equipment, attainment of emission standards, improvement plans and achievement timeframe, as well as local EPB supervision information regarding violations.

Shandong's "Dual Platform" model provides an innovative new example of effective pollution source supervision information disclosure. In accordance with the provincial EPD's requirements for unified information disclosure, every city in Shandong Province is required to submit clearly summarized relevant information during set timeframes, which are subsequently collected and posted on the integrated platform of the provincial EPD's official website every month. (Translator note: the term 'unified information disclosure' means that all information is disclosed on one platform. The platform is usually hosted on a respective EPB (Environmental Protection Bureau)'s website.) This disclosure format makes it easy for the public to trace the attainment status of each pollution source through different time periods, and compare the status of the installation of pollution control equipment to the standards of each local area. (Translator note: Pollution control equipment here means the technologies and process used to reduce pollution and emissions throughout the various stages of the production process.)

Figure 3-6 Shandong Province's "shuangshai"



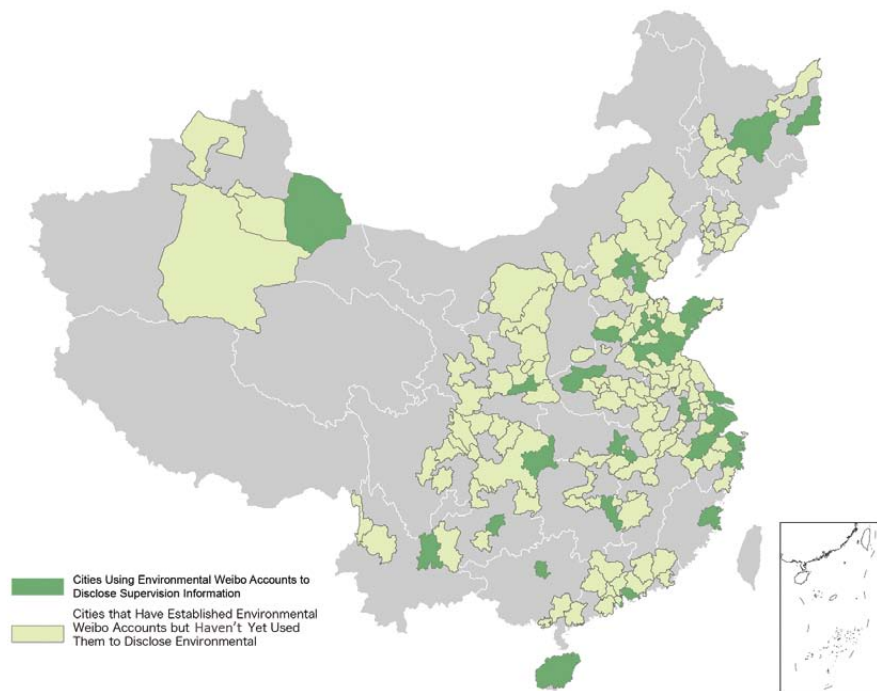
### • Sharing Supervision Information through New Media and Accepting Public Supervision

The rise of the internet age and new media have had a profound impact on efforts for environmental protection. At the first session of the National Environmental Internet Conference, MEP Vice Minister Pan Yue emphasized,

“We [the MEP] should respect and guarantee the public’s right to know, to participate, and to supervise. We need to utilize internet mentality with increasingly transparent attitudes, to promptly and comprehensively disclose information to the public. At the same time, information disclosure demands interaction with the public, actively responding to their concerns, as well as equal opportunities for the public to communicate [with industry and the government].”<sup>8</sup>

In this year’s assessment, we’ve observed that of the 156 cities that have opened government backed environmental Weibo accounts, 36 cities have used their Weibo accounts to publish environmental supervision information. 30 of these cities are included in the 120 PITI-assessed cities. The Shandong cities of Linyi, Qingdao, and Jinan stand out as active users of the government Weibo system to publish environmental supervision information and interact with the public.

Figure 3-7 Cities That Have Used Weibo to Disclose Environmental Supervision Information



8. MEP Vice Minister Pan Yue: The MEP Must Be Skilled in the Ways of the Internet and New Media, Xinhua Web, [http://news.xinhuanet.com/local/2015-06/01/c\\_1115476570.html](http://news.xinhuanet.com/local/2015-06/01/c_1115476570.html) (July 24, 2015 interview)

Figure 3-8 @Qingdao Environmental Protection Disclosure of Pollution Source Supervision Information  
Picture source: <http://weibo.com/p/1001603796079274493078>, screenshot time: 7/22/2015)



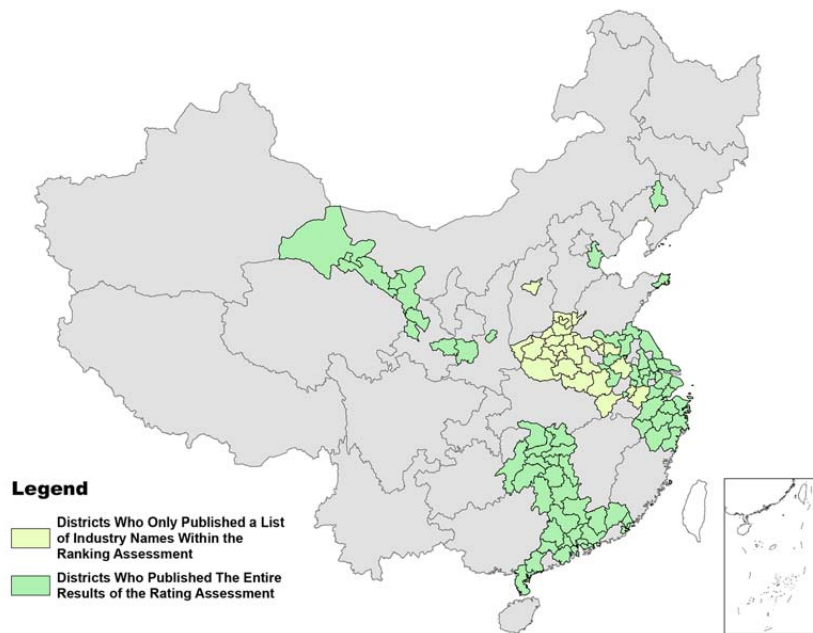
## 2. Enterprise Environmental Credit Ratings

### 2.1 Key Improvements: A Growing Number of Cities Publicized Detailed Evaluation Standards for Enterprise Environmental Credit Ratings

In the current assessment, 13 provinces (including autonomous regions and municipalities directly under central government control) have published the results of Enterprise Environmental Credit Ratings for 111 cities, 52 of which have been included in our 120-city ranking.<sup>9</sup> Hunan, Hefei, and other cities started publicizing detailed evaluation standards for their appraisal of enterprise environmental performance. As the evaluation standards clearly state the evaluation process and results, these measures perform the dual function of improving enterprise credibility as well as bolstering public supervision and engagement.

9. Among these provinces, Henan only published the 5A level list of enterprise names in their credit level rating.

Picture 3-9 Scatter Plot of Districts Implementing Environmental Credit Ratings



## 2.2 Existing Shortcomings: Limited Scope of Evaluated Areas and Lack of Detailed Evaluation Criteria

According to this year's PITI evaluation, among the 120 evaluated cities, only 52 have conducted ratings of Enterprise Environmental Credit. Only Hunan, Hefei, and a handful of other cities published detailed evaluation standards. The other cities have only published enterprise names and color-coded rankings of Enterprise Environmental Credit.

Figure 3-10 Degree of Completion for Enterprise Environmental Credit Ratings  
Disclosure within Evaluated Provinces

Provinces	City	Enterprise Name and Rating	Assessment Results	Rating Basis
Tianjin	Tianjin	√	√	X
Liaoning	Shenyang	√	√	X
Shanghai	Shanghai	√	√	X
Jiangsu	Nanjing	√	√	X
Jiangsu	Wuxi	√	√	X
Jiangsu	Xuzhou	√	√	X
Jiangsu	Changzhou	√	√	X
Jiangsu	Suzhou	√	√	X
Jiangsu	Nantong	√	√	X
Jiangsu	Lianyungang	√	√	X
Jiangsu	Yangzhou	√	√	X
Jiangsu	Zhenjiang	√	√	X
Jiangsu	Yancheng	√	√	X
Zhejiang	Hangzhou	√	√	X
Zhejiang	Ningbo	√	√	X
Zhejiang	Wenzhou	√	√	X
Zhejiang	Jiaxing	√	√	X
Zhejiang	Huzhou	√	√	X
Zhejiang	Shaoxing	√	√	X
Zhejiang	Taizhou	√	√	X
Anhui	Maanshan	√	√	X
Anhui	Hefei	√	√	√
Hunan	Changsha	√	√	√
Hunan	Zhuzhou	√	√	√
Hunan	Xiangtan	√	√	√
Hunan	Yueyang	√	√	√
Hunan	Changde	√	√	√
Hunan	Zhangjiajie	√	√	√
Guangdong	Guangzhou	√	√	X
Guangdong	Shaoguan	√	√	X
Guangdong	Shenzhen	√	√	X
Guangdong	Zhuhai	√	√	X
Guangdong	Shantou	√	√	X
Guangdong	Foshan	√	√	X
Guangdong	Zhanjiang	√	√	X
Guangdong	Zhongshan	√	√	X
Guangdong	Dongguan	√	√	X

## 2.3 Innovative Cases

### **Hunan Province Actively Solicited Opinions from Environmental Organizations for the Assessment of Enterprise Environmental Credit Ratings**

On May 15th, 2015, the Hunan Province EPD website published the 2014 Hunan Province Annual Enterprise Environmental Credit Ratings Result Report. A total of 1,184 enterprises were evaluated according to a four-part assessment standard. The four parts of the standard are as follows: “environmentally credible,” “environmentally satisfactory,” “environmentally risky,” and finally “environmentally unsatisfactory.” 31 enterprises were ranked as “environmentally credible,” 934 enterprises were ranked as “environmentally satisfactory,” 130 were ranked as “environmentally risky,” and 89 were evaluated as “environmentally unsatisfactory.” Public comments were accepted from May 15th, 2015 to May 22nd, 2015.

During the public comment period, a Hunan-based local environmental organization, Changsha Green Hunan Environmental Education Center (abbreviated to Green Hunan), disseminated this comment opportunity through its Wechat account, its website, its Wechat/QQ groups, and collected public comments. Through the comparison of the environmental supervision information disclosed to the public, Green Hunan discovered 63 of the companies who were ranked as “environmentally satisfactory” had environmental violation records, and 71 companies had instances of self-monitored excessive violations in 2014. According to this information, Green Hunan sent a formal notification letter to the Hunan Province Emission Rights Trade Center (the Enterprise Environmental Credit Ratings Office) on May 19th 2015. On May 27th the Enterprise Environmental Credit Ratings office responded to the notification letter, stating that “18 companies have been found to be in violation of environmental standards, and we will correspondingly adjust their assessment rating.” Four companies were demoted from “environmentally satisfactory” to “environmentally unsatisfactory,” 13 companies were demoted from “environmentally satisfactory” to “environmentally risky,” and one company was demoted from “environmentally credible” to “environmentally satisfactory.” The response letter also accepted Green Hunan’s recommendation “to use enterprise self-monitoring data as a foundation for the rating of Enterprise Environmental Credit.”

On June 9th 2015, the Hunan Province Environmental Performance Rating Office invited Green Hunan to participate in an on-site investigation of the Hunan Sailong Medicine Corporation to determine if the business was worthy of an upgrade in its rating. The Environmental Credit Ratings Office also indicated that environmental organizations would be invited to participate in the ‘rating upgrade’ process of several companies that were set for a ‘rating upgrade inspection’ in August.





## 4. Publication of Key Pollution Sources' Automatic Monitoring Information.

### 4.1 Key Improvements: An Increasing Number of Locations Implement Real-Time Data Disclosure for Key Pollution Sources

In this year's assessment, the provinces of Shandong, Zhejiang, Anhui, Shanghai, Fujian, Hubei, Guizhou, Jiangxi, and Ningxia achieved an average score of 88.85% for real-time information disclosure of key pollution sources that the Chinese government has designed as important to monitor. High levels of accessibility and relatively complete disclosure of real-time data contributed to this increase in average score.<sup>10</sup>

The establishment of the Shandong provincial EPD's "Provincial and State Controlled Enterprise Monitoring Information Publication Platform" improved the following characteristics of self-monitored and automatically generated data collection methods: the systematic nature of information disclosure, the timeliness of disclosure, and the degree of completion of disclosure. The platform collected the automatic and self-monitored data from 1,453 enterprises, leading to a 19.9 point score increase in Shandong's average score.

The provincial level platforms of Guizhou, Jilin, and Gansu all had low scores in the previous assessment year, but have experienced significant levels of improvement during this assessment period, increasing their scores by 10 points or more as their platforms improved upon the disclosure of self-monitored data.

More locations have been disclosing real time data. In fact, cities that do not comply with requirements to disclose information are increasingly in the minority. The PITI assessment group found that the "Guangdong Province's Key Enterprise Pollution Source Self-Monitoring Data Publication Platform" had started to publish self-monitored data and implemented real-time online data disclosure. Shanxi and Qinghai are the only provinces that have not yet implemented real-time data disclosure.

---

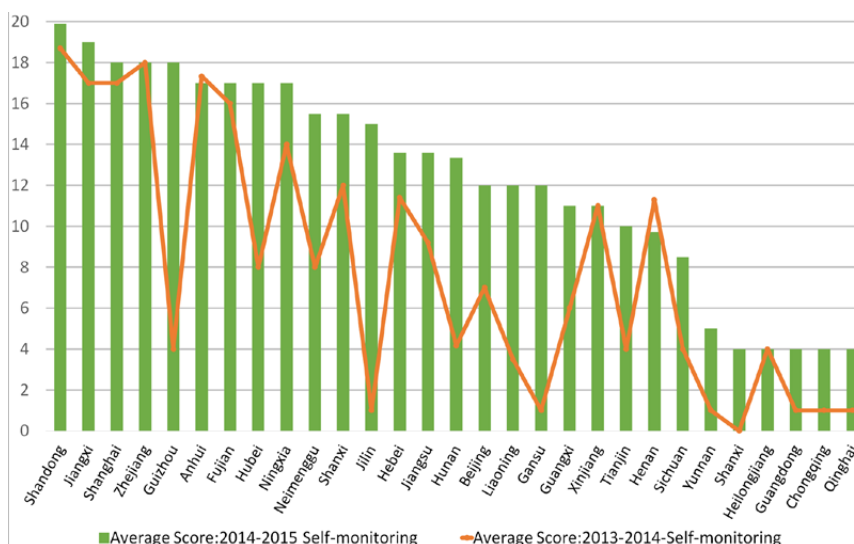
10. According to "The Methods for National Key Monitored Enterprise Self-Monitoring and Information Disclosure," voluntary monitoring data results should be published in real-time. Cities are required to publish, in real time, the average data values collected every hour from air emissions 'voluntary monitoring installations' and data collected every two hours from waste water monitoring installations. In this current assessment, we used the Blue Map app to acquire self-monitoring data from every province's platform in December 2014. We will use the term, "B" to represent the total environmental pollutant information disclosed by each city.

"A" represents the amount of environmental pollutant information that is required to be disclosed.

"A" = the number of State Controlled Enterprises that emit 'Government Identified Air Pollutants' in any given city assessed in 2014 \* 24hours \* 31 days + (the number of State Controlled Enterprises in any given city that emit wastewater + the number of wastewater treatment plants in any given city) \* 12 hours \* 31 days.

The result of A÷B equals the self-monitored information disclosure acquisition rate of each assessed city.

Figure 3-12 Comparison of Automatic Monitoring Average Score by Province



#### 4.2 Existing Shortcomings: The Majority of Platforms Are Still Not Comprehensive and Have Problems with Timely Disclosure

Online platforms for the disclosure of monitoring information should improve upon the following items:

- Qinghai<sup>11</sup>, Shanxi<sup>12</sup>, and other regions still need to disclose real-time automatic monitoring data from key polluting state controlled enterprises. The EPB websites of these two provinces already have the “Key Pollution Enterprises Self-monitoring Publication Platform” which provides the technological hardware needed to implement real-time information disclosure. This platform should be utilized in a timely manner in order to replace the old disclosure methods. That is, newer and more rigorous methods for real-time data disclosure are needed.
- Chongqing and Yunnan both received low scores for their disclosure platforms (systems in place for online disclosure). The aforementioned platforms in Chongqing, Yunnan, as well as a few other provinces have continued to receive low scores due to the lack of comprehensive data disclosure and infrequently updated data.
- The data collected from some provinces reveals that the success of real-time monitoring is negatively affected by a lack of timely data disclosure.<sup>13</sup>
- The majority of locations still have not disclosed air and water emission volumes, making it

11. In 2015, Qinghai Province’s self-monitoring information disclosure went up a rating, however, the platform still has not implemented real-time disclosure. URL: <http://www.qhepb.gov.cn/pub/jkpt/>

12. The Shanxi Province EPD has already set up the “Shanxi Key Monitored Industries Self-monitoring Real-time Data Disclosure Platform,” however, the platform has yet to publicize new data. This new platform should be used as quickly as possible, as the tools for real-time data are already in place. <http://www.sxhb.gov.cn:8011/wryzxc/sxzc/index.action> accessed on July 28th, 2015

13. Key enterprise self-monitoring publication platforms in the provinces of Tianjin, Gansu, Chongqing, Inner Mongolia, Hubei, Hunan, Sichuan, and Jilin continue to lag behind standards for best practices, making it impossible for the public to monitor and know about potentially serious emissions of pollutants in time.

difficult for the public to comprehend the volume of industry pollutant emissions and to push industry to reduce emissions.<sup>14</sup>

- The majority of locations have only disclosed real-time data for key state-controlled pollution sources and have yet to implement real-time data disclosure for provincial and city controlled enterprises. (Translator note: Provinces and cities also identify ‘key enterprises’ that they flag and monitor.)

### 4.3 Innovative Cases

#### **Using Information Transparency to Promote Environmental Enforcement through the Means of Public Supervision**

Shandong and Jiangsu Provinces are the frontrunners for real-time monitoring data disclosure. These provinces and other top performing provinces use real-time monitoring data to bolster public supervision and promote environmental law enforcement.

On June 2014, IPE’s cellphone app Blue Map went online. The Blue Map app collects air quality, real-time key pollution source monitoring data, and water quality monitoring information.<sup>15</sup> The public can use the Blue Map app to track levels of pollution or environmental quality in real-time and can share related information through various social media networks. Together, these functions serve as a mechanism to push industries to improve their environmental performance and reduce their pollutant emissions. Disclosure of key pollution source real-time monitoring data from local EPBs’ official Weibo accounts or enterprise Weibo accounts led to more than 480 enterprises responding to user-reported problems with these enterprises’ real-time monitoring data. As a result, more than 70 companies improved their pollution source emissions status by June 10, 2015. Enterprises that were repeatedly reported by online users were fined or otherwise punished by the EPB. After repeated complaints by netizens for persistent excessive air pollution from Wuhan Gaoxin Coal-fired Power Company, the Wuhan City EPB enforced daily penalty fees, ultimately assessing a fine of 2,100,000 RMB (approx. USD \$330,328.30).

---

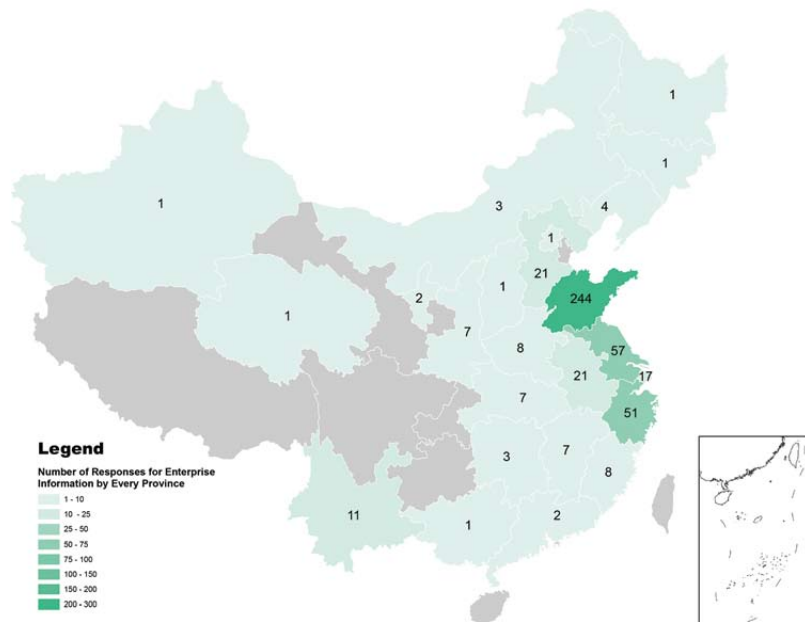
14. Shanghai, Tianjin, Henan, Fujian, Shanxi, Ningxia, Xinjiang, Jiangsu, Inner Mongolia, Hubei, Guangxi, Hunan, Sichuan, Guizhou, Jilin, Liaoning, Hainan, and Guangdong Provinces still have not publicly disclosed data on the volume of pollution e uents released into air and water.

15. The original app name was “Pollution Map.”

Figure 3-13 @Wuhan EPB Responses to Online Complaints about Wuhan Gaoxin Coal-Fired Power Company  
 (image Source: [http://weibo.com/2735973604/Cdojc6vzc?from=page\\_1001062735973604\\_profile&wvr=6&mod=weibotime&type=comment](http://weibo.com/2735973604/Cdojc6vzc?from=page_1001062735973604_profile&wvr=6&mod=weibotime&type=comment) Screenshot time: 7/22/2015)



Figure 3-14 Degree of Industry Feedback across All Provinces



## Guohua Power Pursues Increased Environmental Information Disclosure

In March 2015, Guohua Power (an electricity generating enterprise) visited IPE to advance dialogue on real-time data disclosure for all of Guohua's electricity generating facilities, as well as Guohua's plan to build a unified platform for the disclosure of real-time monitoring data for all of its electricity generating facilities across the nation. On June 4th 2015, IPE was invited to attend the environmental protection open house hosted by Guohua at the Three Rivers Power Corporation, Ltd. Guohua Power launched their official online platform for public information disclosure on the day of the event. Guohua has 18 power plants across China, all of which will publicly disclose complete environmental emission data. Guohua will become China's first company within the electricity generation sector to completely collect and disclose company environmental data.

Figure 3-15 Guohua Power Environmental Information Disclosure  
(image source: [http://www.ghepc.com/\(2015/8/9\)](http://www.ghepc.com/(2015/8/9)))



## II. Interactive Responses

### 1. Environmental Petitions and Complaints

The first session of the national “Environment and the Internet Conference” was held in Jinan, Shandong Province on June 1st, 2015. On the day of the conference, the MEP announced that government-backed Weibo and Wechat accounts specifically used to broadcast China’s environmental news and environmental education programs were officially online. During the conference, Vice Minister Pan Yue pointed out that: “The internet not only helps foster a greater sense of environmental consciousness amongst the general public, but also helps increase the number of channels that the public can use to protect the environment. The general public can use the internet to publicize their own voices and to participate in environmental political affairs and incidents, thereby influencing strategic decision-making processes. With the internet, the general public becomes a ubiquitous force when it comes to supervising environmental issues and participating in environmental protection efforts.”<sup>16</sup>

Our current report discovered that the arrival of the ecological “Internet Era” helped diversify the avenues with which environmental petitions and complaints are filed. Citizens have traditionally been able to file complaints and petitions through the environmental agencies’ official website complaint section, or by calling the national environmental complaint hotline, “12369,” amongst other traditional strategies. However, across China, 70 cities have begun to use government-backed Weibo accounts to receive environmental complaints and petitions online. Of these 70 cities, 47 cities are in the 120 cities we have evaluated for this report, which accounts for 39.2% of the 120 cities. In addition, a Wechat reporting feature has been established in some areas in the country, allowing local EPBs to receive environmental complaints and petitions through this popular social media tool.

#### 1.1 Developments: Diversifying Environmental Complaints and Petition Filing Channels

Environmental complaints and petitions filing channels, which traditionally consisted of the telephone hotline “12369” and a respective EPB website’s environmental issue complaint section, now include interactive complaint filing methods through Weibo and Wechat.

We observed in our investigation that about 156 cities’ EPBs have established Weibo accounts. Of the 129 active local EPB-backed Weibo accounts, 70 EPBs began to use EPB-backed Weibo accounts to accept petitions from the public regarding complaints about pollution in 2014, and to disclose the investigation results of these environmental complaints on their respective Weibo accounts. These 70 EPBs are primarily based in Shandong Province and Zhejiang Province.

Besides the EPB Weibo accounts in Shandong and Zhejiang, the following Weibo accounts of various EPBs around the nation have exhibited outstanding performance in dealing with local environmental petitions and complaints:

16. “Weibo’s Unique Characteristics and Its Capacity to Gauge Public Opinion”: People’s Daily Web—People’s Daily News Research Web, April 4th, 2012. <http://media.people.com.cn/GB/22114/206896/241714/17580580.html>

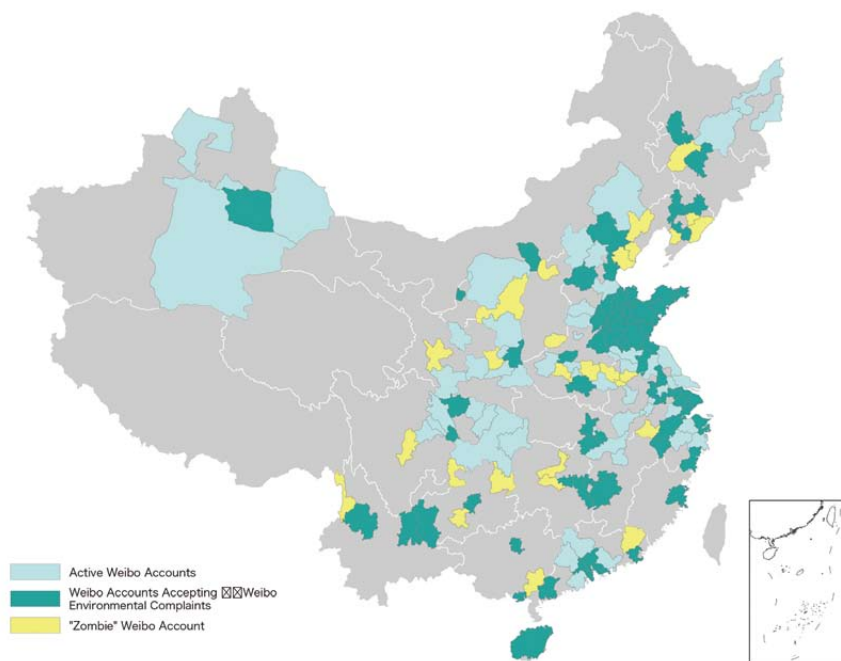
@YunnanQujingHuanBao (Yunnan Qujing Environmental Protection), @YinchuanHuanjing JianCha (Yinchuan Environmental Supervision), @ZhuzhoushiHuanjingBaohuju (Zhuzhou City Environmental Protection Bureau), @KunmingshiHuanbaoJu (Kunming City Environmental Protection Bureau), @LuseZhengZhou (Green ZhengZhou), @WuxiHuanbao (Wuxi Environmental Protection)

We also observed that the local governments that have opened EPB Weibo and Wechat accounts have also placed weblinks and QR codes leading to their social media outlets on their respective official EPB web pages. In fact, Wenzhou City’s EPB took it a step further and established a “Wenzhou Environmental Protection Interactive Communication Center” on its website, which hosts a live feed of constantly updated official news from its Weibo account. This is an example of how the interactive nature of new media is able to integrate with traditional websites and other types of internet technology for environmental protection in China.

Qujing City’s EPB website has a direct link to “File an environmental complaint through Weibo”; clicking on the link takes the user directly to its Weibo page, where one can immediately submit an environmental complaint.

Another excellent example can be found in Yunnan Province’s Qujing City. Yunnan Province’s Qujing City Party and Government affairs leader group office official Weibo @WenZhengQujing (Ask the Qujing City Government), and @YunnanQujingHuanbao (Yunnan Qujing City Environmental Protection) are highly interactive when receiving complaints and promptly following up with environmental complaints filed by the general public. These two accounts also quickly update complainants with their finding results and publicize how they are handling their response on Weibo. They work closely with whoever filed the complaint on their Weibo (i.e. the petitioner, or “@Petitioner”) and communicate with other internet users to address environmental issues.

Figure 3-16 Map of Environmental Protection Government Backed Weibo Accounts





On March 15th, a Wechat-based environmental reporting platform, called “12369 Environmental Reporting” (a Wechat Public Number that anyone can call or write to) officially came online. This was in accordance with MEP requirements, which stipulated that a Wechat-based environmental issue reporting platform be established before or on that date. Zhengzhou (capital of Henan Province), Kaifeng (a city in Henan), Harbin (capital of Heilongjiang Province), Taiyuan (capital of Shanxi Province) are the first group of pilot cities for this platform. Citizens in these cities are able to use Wechat to report illegal environmental activities to their respective local governments. Since June 5th, Wechat environmental reporting platforms across the nation are being established, thus allowing for the comprehensive handling of environmental pollution complaint cases filed by citizens across China.

## 1.2 Existing Shortcoming: Environmental Governmental Affairs Weibo Accounts Are Not Yet Systematized

Vice Minister Pan Yue pointed out during the national “Environment and the Internet” conference on June 1st, 2015, that to meet the “requirements of a new era of environmental protection in light of fervent expectations by the general public, significant room for improvement still exists in developing new media tools for environmental protection.”<sup>17</sup>

According to our findings, there are currently 156 city governments that have established environmentally-focused governmental Weibo accounts.<sup>18</sup> Out of these 156 city government-backed Weibo accounts, 27 Weibo accounts never publish new information, or have not been updated in a very long period of time. Internet users jokingly call these accounts “Zombie Weibo” pages.<sup>19</sup>

Nearly one half of all city governments have not yet established environmental governmental affairs Weibo accounts. Regions that have created governmental affairs Weibo accounts, however, have mixed results and cannot be considered fully integrated operational systems. A system that fully includes all four levels of environmental bureaus in China (i.e. including the Ministry of Environmental Protection, in addition to provincial-level environmental bureaus, municipal bureaus, and county-level bureaus) has not yet been established.

With regards to filing environmental complaints and reports through Wechat, it appears that at the moment a petitioner can only see his or her own log of environmental petitions and complaints filed to the government through Wechat. A petitioner is unable to see what other environmental issues other citizens may have filed petitions or complaints on, thus illustrating a critical challenge in providing for the extensive and effective public supervision of environmental problems.

## 1.3 Innovative Cases

### • **Yinchuan City (capital of Ningxia Hui Autonomous Region) Environmental Supervision Detachment Governmental Weibo**

In March 2013, Yinchuan City’s environmental supervision detachment established an governmental Weibo account @YinchuanHuanjingJiancha (Yinchuan Environmental Supervision),

17. Linyi DianDian Environmental Protection founder, @HuanBaoWangZhaoHua has always advocated for the Ministry of Environmental Protection to establish government affairs Weibo accounts.

18. Ministry of Environmental Protection Vice Minister Pan Yue: Encouraging Environmental Protection Departments to Establish Weibo and Wechat Accounts, Eco-Governmental Office, published June 1st, 2015. [http://www.thepaper.cn/newsDetail\\_forward\\_1337295](http://www.thepaper.cn/newsDetail_forward_1337295), accessed on July 27th, 2015.

19. Environmental activist and Weibo user, @HuanBaoWangZhaoHua has always advocated for the Ministry of Environmental Protection to establish government affairs Weibo accounts.

to receive environmental complaints and petitions transferred from the telephone hotline 12369 and the Yinchuan environmental protection bureau's Weibo account @YinchuanHuanbao (Yinchuan Environmental Protection).

@YinchuanHuanjingJiancha (Yinchuan Environmental Supervision) responds to all environmental complaints and petitions, and shares all results of the investigation of the environmental complaint with the public, all while constantly posting updates at the petitioner's (@Petitioner) Weibo account.

Figure 3-17 Yinchuan City's Environmental Supervision Detachment Weibo



### • Shandong's Environmental Governmental Affairs Weibo System

Out of the regions that have established Environmental Protection governmental affairs Weibo accounts, Shandong Province's Environmental Protection Bureau first established its account (@Shandong Huanjing or @Shandong Environment) in May 2013. Shortly afterwards, 17 other prefecture-level cities also established environmental governmental affairs Weibo accounts. (These prefecture-level cities include Qufu, Zouping, Yanzhou, Qingzhou, and Linqu). More than one hundred other county-level EPBs also created environmental governmental affairs Weibo accounts.<sup>20</sup> Shandong's various prefecture-level cities and county-level cities have a three-pronged approach to using their governmental affairs Weibo accounts.<sup>21</sup> Their digital strategy aims to publicize environmental information as well as updates on each EPB offices' developments, to settle environmental complaints and petitions filed by the general public, and to start a tradition of "online interaction and off-line law enforcement" to address environmental problems that affect each EPB's jurisdiction.

Figure 3-18 Environmental Government Weibo Systemization Level Ranking Chart<sup>22</sup>

Rank	Weibo Username	Verified Account Holder	Coverage Score	Usefulness Score	Interactivity Score	Total
1	Shandong Environment	Shandong EPB Official Weibo	98.92	75.89	98.36	94.62
2	Linyi Environment	Linyi EPB Official Weibo	90.31	89.91	91.65	92.78
3	Qingdao Environment	Qingdao EPB Official Weibo	92.78	78.55	83.25	88.70
4	Rizhao Environment	Rizhao EPB Official Weibo	87.77	78.35	76.34	82.70

20. "Shandong Province's Model for 'New Media'," New Environment, December 16th, 2014, [http://mp.weixin.qq.com/s?\\_\\_biz=MzA4NDg2OTIzNA==&mid=201894732&idx=1&sn=5fc74e86f1c40fb5f97eee6e32da3b1#rd](http://mp.weixin.qq.com/s?__biz=MzA4NDg2OTIzNA==&mid=201894732&idx=1&sn=5fc74e86f1c40fb5f97eee6e32da3b1#rd) (accessed on July 24, 2015)  
Note: The direct translation of "Zi Mei Ti" is "Self Media"; what this means is that an individual is primarily responsible for publishing content for his or herself, by his or herself.

21. According to an update from the China Environmental Report published on July 21st, 2015, the Environmental Protection Affairs Weibo accounts of twenty townships (i.e. residential districts) in Ju County of Shandong Province, as well as Rizhao Haiyou Economic Development Zonet Zonect Zonement Zone Zoncou EconomWeibo, all went on-line and are updated regularly. Shandong Province is in the process of pushing for, and constructing, a unified, multi-tiered Weibo system that aggregates environmental news and data from the provincial-level, city-level, county-level, and township-level.

22. Environmental Protection System Governmental Affairs report published on June 1st, 2015, [http://www.cenews.com.cn/sylm/hjyw/201506/t20150601\\_793074.htm](http://www.cenews.com.cn/sylm/hjyw/201506/t20150601_793074.htm), accessed on June 24th, 2015.

As part of Shandong Province's EPD Weibo System, the prefecture-level and county-level EPB Weibo accounts all have to interact with "@Shandong Huanjing" ("@Shandong Environmental"). In certain ways, @Shandong Environmental can be seen as the center spoke of a wheel, with each lower-level EPB's Weibo account connected to it. Without each lower-level EPB Weibo account acting in tandem with @Shandong Environmental, the figurative wheel cannot turn as effectively.

When each local EPB successfully manages to resolve an environmental pollution incident, or helps settle a complaint filed by an online user (netizen), each local EPB will use Weibo to share these updates online on their feeds, as well as interact with a higher level environmental bureau, or the @Shandong Huanjing (@Shandong Environmental). These higher level environmental bureaus (e.g. prefectural city EPBs) and the @Shandong Huanjing (@Shandong Environmental) Weibo will post updates on the most outstanding examples of environmental incident management by county-level EPBs online. This helps increase the exposure of the actions of local EPBs to the entire province. The system of higher-level environmental governmental agencies updating posts submitted by lower level EPBs allows all environmental governmental affairs Weibo accounts to increase their impact in Shandong Province.

In this year's "Government-backed Environmental Protection Weibo and Wechat Account Rankings," released on June 1st, 2015, Shandong Province's Environmental Protection Bureau and 42 other lower-level EPBs within the province were amongst the top 100 cities on the list.<sup>23</sup>

In the previous chapter, we mentioned that China already has a "12369" Environmental Reporting Hotline Weibo platform, which provides the public with a unified platform to file environmental complaints.

However, considering Wechat's characteristics, many of the environmental complaints that are filed—in accordance with standard guidelines—to these EPB-backed Wechat accounts are not in fact shared with the general public. (Communication on Wechat is primarily centered on insular "groups" or "circles" of users.) In comparison, Weibo has an "open-platform" system; users have public profile pages that can be viewed by anyone. (In a sense, Weibo is akin to Twitter.) And, since Weibo users typically have "followers," the platform allows for the rapid sharing of information and news through users re-posting other users' content. In this way, this important characteristic of Weibo allows for "public opinion supervision" by ordinary citizens online. Or in other words, it allows Internet users to scrutinize information published by government agencies.<sup>24</sup>

To ensure the protection of the fundamental right of the public's right to know, their right to participate in environmental protection efforts, as well as their right to act as watchdogs on environmental issues, we must work closely with all sectors of society (i.e. government, industry, civil society, and the general public) to further advance environmental protection efforts. We advise that EPBs across the nation summarize and learn from the best practices of Shandong Province's environmental protection /social media outreach system, as well as other areas' experience working

23. Environmental Protection System Governmental Affairs report published on June 1st, 2015, [http://www.cenews.com.cn/sylm/hjyw/201506/t20150601\\_793074.htm](http://www.cenews.com.cn/sylm/hjyw/201506/t20150601_793074.htm), accessed on June 24th, 2015.

24. Special Characteristics of Weibo and Its Ability to Bolster Public Supervision, People's Net, People's Daily News Research Net, April 9th, 2012 <http://media.people.com.cn/GB/22114/206896/241714/17580580.html>

with social media tools. Shandong Province has taken the lead nationally in establishing an “online-offline” interactive and “multi-tiered” Weibo platform for dealing with environmental issues. This structure has not only helped promote the formation of and the development of Weibo micro blogging systems for dealing with environmental issues, but has also helped improve the work-flow, organizational structure, and delegation of responsibilities for various environmental protection agencies in Shandong Province. The “multi-tiered” Weibo platform in Shandong Province has also helped create an effective information dissemination and governmental response procedural system, both online and offline.

Another standout quality of the Shandong EPB-backed Weibo system is that it has clearly capitalized on the strengths of Weibo’s microblogging platform. Through microblogging, EPBs are able to advance environmental education initiatives online, promote information disclosure, and provide accessible channels for environmental complaints and petitions. Weibo also allows various environmental protection bureaus to gauge public sentiment on environmental issues, to provide guidance and information online, and to communicate and work collaboratively with different sectors of society on addressing environmental concerns. What is more, Shandong’s EPB Weibo system encourages innovation amongst provincial, county, and local government agencies, promotes the inclusion of all sectors of society in environmental protection work, and advocates for a proactive, collaborative response from both government and industry in creating a better, more green future.

## 2. Disclosure Upon Public Request

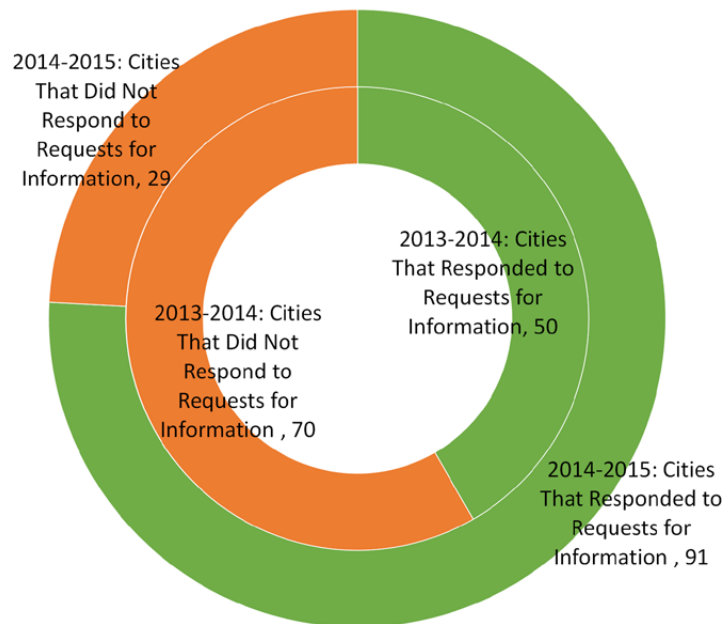
### 2.1 Key Improvements: More Regions Are Responding to Requests by PITI Assessment Groups

In October 2014, PITI assessment groups sent information disclosure requests to the 120 assessed cities, through several avenues. This included submitting an application for information disclosure through a web page-based inquiry form, by email, by fax, and by post. The submitted inquiries for public information disclosure primarily asked for the following information: the 2014 third-quarter city-wide environmental administrative penalty decisions, including those imposed upon key state-monitored, province-monitored and city-monitored pollution sources, and a list of environmental impact assessment reports for construction projects submitted in the third-quarter of 2014.

According to our findings, 91 cities responded to inquiries for information disclosure (thus, 75.83% of cities had a response rate to inquiries on information disclosure). In comparison with last year’s data, 41 more cities this year responded to inquiries for information disclosure, signaling an increase in governmental responsiveness. Among the cities that responded to inquiries for information disclosure, 84 cities responded in 15 business days or less.

Out of all the cities surveyed, the EPBs in Xuzhou, Dongguan, and Changzhou deserve recognition for their respective responses to inquiries for information disclosure. These cities’ EPBs sent detailed publications on administrative penalties decisions to the respective groups that asked for this information. In fact, Dongguan provided over 500 of their city’s administrative penalty decision publications to groups that requested it.

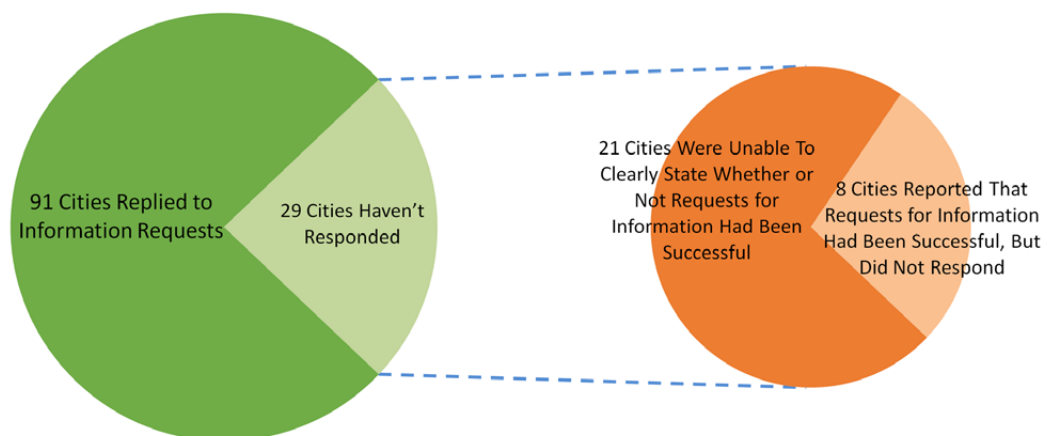
Figure 3-19 Public Information Requests and Responses



## 2.2 Existing Shortcoming: Regions Have Yet To Develop a Comprehensive System for Information Disclosure Upon Public Request

Several cities have yet to develop a comprehensive working system for information disclosure upon public request. Of the 120 cities that we requested information disclosure from, there were 29 cities that did not respond at all to our inquiries. Out of these 29 cities, 21 cities could not confirm whether or not the inquiries for information disclosure were successfully delivered to their respective EPBs. The remaining 8 cities of the 29 did not effectively respond to the request even though we reached out to the cities' respective EPBs; these cities have yet to develop an effective system of responding to inquiries for information disclosure.

Figure 3-20 Public Information Requests and Responses



### III. Enterprise Emissions Data

#### 1. Key Enterprise Emissions Data Disclosure

##### 1.1 Key Developments: Increase in the Number of Cities That Publicly Report Annual Enterprise Emissions Data

Since January 1, 2014, when the “Measures on Self-Monitoring and Information Disclosure of Key State-Monitored Enterprises (Trial)” took effect, key state-monitored enterprises have used their respective local “Key Pollution Source Self-Monitoring Information Publication Platforms” to publish their annual reports on pollutant emissions, thus allowing the general public to learn about, and stay updated on, these enterprises’ annual pollutant emissions. By fully utilizing the existing resources of this digital, web-based platform, these enterprises are able to share their pollutant emissions data with the public. The data can then be conveniently and comprehensively aggregated and analyzed. (The platform presents the data in a manner that allows for the general public to easily conduct research on pollutant emissions, while also allowing them to easily compare and contrast data from various enterprises.)

Out of the 120 cities evaluated this year, a total of 101 cities had state-monitored enterprises publish emissions data representing an increase of 73 cities compared to last year’s assessment. During our current reporting period, the 120 cities achieved an average score of 4.5 points for the indicator, “Enterprise Emissions Data,” comprising a percentage score of 27.9%. Of the cities that have published annual pollution emissions data, 33 cities published information on characteristic pollutants, 79 cities published data on hazardous waste disposal, and 7 cities shared data on environmental management of key hazardous chemical substances. Compared with last year’s data, more cities released information on hazardous pollutants this year than in previous years.

Figure 3-21 Enterprise Pollutant Emission Data Comparison over the Last Two Years

Year/ Project	Number of Cities That Disclosed Conventional Pollutant Data	Number of Cities That Disclosed Non-Conventional Pollutant Data	Number of Cities Disclosing Release and Transfer of Key Hazardous Chemical Substances	Number of Cities That Disclosed Key Dangerous Chemical Data	Number of Cities That Disclosed the Type, Properties, and Emissions Data for Dangerous Chemicals
2013-2014 Assessment Period	27	5	2	0	0
2014-2015 Assessment Period	99	33	79	7	0

##### 1.2 Existing Shortcomings: Incomprehensive Disclosure of Data on Characteristic Pollutants and Hazardous Chemical Substances

The results of our current report indicate that the majority of cities have not completely disclosed characteristic pollutant emission data from key pollution sources, such as the types of hazardous chemical substances used during production and operation of enterprises. (Translator note: characteristic pollutants are substances that are emitted during the production cycle of an enterprise(s). These substances are different from the “primary pollutants” or commonly monitored pollutants, such as COD and NOx) Many cities also do not provide an explanation of the specific properties and potential side-effects of these hazardous chemicals. Enterprises have not released detailed information on the release and transfer of key hazardous chemical substances either. This represents a huge gap between the disclosure practices conducted by these 120 cities and the standards for pollutant information disclosure required by Pollution Release and Transfer Register “PRTR” systems.

Figure 3-22 Chart on Degree of Completion for Enterprise Pollutant Emission Data Disclosure

City	Conventional Pollutant Emission Data	Non-Conventional Pollutant Emission Data	Yearly Conversion/Treatment of Hazardous Waste	Data Disclosure for Government Selected Primary Hazardous Chemicals for Supervision	Dangerous Chemical Type, Characteristics, and Emissions Status
Beijing	√	√	√	√	X
Fuzhou	√	√	√	√	X
Baotou	√	√	√	√	X
Changchun	√	√	√	√	X
Haerbin	√	√	√	√	X
Shijiazhuang	√	√	√	X	X
Baoding	√	√	√	X	X
Tangshan	√	√	√	X	X
Xiamen	√	√	√	X	X
Quanzhou	√	√	√	X	X
Tianjin	√	√	√	X	X
Hohhot	√	√	√	X	X
Chifeng	√	√	√	X	X
Shenyang	√	√	√	X	X
Shanghai	√	√	√	X	X
Hefei	√	√	√	X	X
Nanchang	√	√	√	X	X
Jiujiang	√	√	√	X	X
Qingdao	√	√	√	X	X
Zhengzhou	√	√	√	X	X
Luoyang	√	√	√	X	X
Sanmenxia	√	√	√	X	X
Changsha	√	√	√	X	X
Liuzhou	√	√	√	X	X
Chongqing	√	√	√	X	X
Guiyang	√	√	√	X	X
Kunming	√	√	√	X	X
Quqing	√	√	√	X	X
Yuxi	√	√	√	X	X
Jinchang	√	√	√	X	X
Yinchuan	√	√	√	X	X
Shizuishan	√	√	√	X	X
Jilin	√	√	X	√	X
Qinhuangdao	√	X	√	X	X
Handan	√	X	√	X	X
Taiyuan	√	X	√	X	X
Datong	√	X	√	X	X
Yangquan	√	X	√	X	X
Changzhi	√	X	√	X	X
Linfen	√	X	√	X	X

City	Conventional Pollutant Emission Data	Non-Conventional Pollutant Emission Data	Yearly Conversion/Treatment of Hazardous Waste	Data Disclosure for Government Selected Primary Hazardous Chemicals for Supervision	Dangerous Chemical Type, Characteristics, and Emissions Status
Ordos	√	X	√	X	X
Qiqihaer	√	X	√	X	X
Daqing	√	X	√	X	X
Hangzhou	√	X	√	X	X
Ningbo	√	X	√	X	X
Wenzhou	√	X	√	X	X
Huzhou	√	X	√	X	X
Shaoxing	√	X	√	X	X
Taizhou	√	X	√	X	X
Jinan	√	X	√	X	X
Zibo	√	X	√	X	X
Zaozhuang	√	X	√	X	X
Yantai	√	X	√	X	X
Weifang	√	X	√	X	X
Jining	√	X	√	X	X
Taian	√	X	√	X	X
Weihai	√	X	√	X	X
Anyang	√	X	√	X	X
Jiaozuo	√	X	√	X	X
Xiangtan	√	X	√	X	X
Yueyang	√	X	√	X	X
Changde	√	X	√	X	X
Nanning	√	X	√	X	X
Guilin	√	X	√	X	X
Beihai	√	X	√	X	X
Panzhuhua	√	X	√	X	X
Luzhou	√	X	√	X	X
Deyang	√	X	√	X	X
Minyang	√	X	√	X	X
Nanchong	√	X	√	X	X
Yibin	√	X	√	X	X
Zunyi	√	X	√	X	X
Tongchuan	√	X	√	X	X
Baoji	√	X	√	X	X
Xianyang	√	X	√	X	X
Weinan	√	X	√	X	X
Yan'an	√	X	√	X	X
Lanzhou	√	X	√	X	X
Fuxun	√	X	X	√	X
Dalian	√	X	X	X	X
Nanjing	√	X	X	X	X



City	Conventional Pollutant Emission Data	Non-Conventional Pollutant Emission Data	Yearly Conversion/ Treatment of Hazardous Waste	Data Disclosure for Government Selected Primary Hazardous Chemicals for Supervision	Dangerous Chemical Type, Characteristics, and Emissions Status
Wuxi	√	X	X	X	X
Xuzhou	√	X	X	X	X
Changzhou	√	X	X	X	X
Suzhou	√	X	X	X	X
Nantong	√	X	X	X	X
Lianyungang	√	X	X	X	X
Yangzhou	√	X	X	X	X
Zhenjiang	√	X	X	X	X
Yancheng	√	X	X	X	X
Ma'anshan	√	X	X	X	X
Wuhu	√	X	X	X	X
Kaifeng	√	X	X	X	X
Pingdingshan	√	X	X	X	X
Yichang	√	X	X	X	X
Urumqi	√	X	X	X	X
Karamay	√	X	X	X	X
Wuhan	√	X	X	X	X
Xian	√	X	X	X	X
Chengdu	X	X	√	X	X
Zigong	X	X	√	X	X

Liu Zhiqian, the deputy Director-General of the MEP Department of Science, Technology and Standards, stated that under the “Thirteenth Five Year Plan,” the government will add industrial dust, volatile organic compounds (VOCs), total nitrogen, and total phosphorus to the list of primary pollutants that require monitoring and reduction for the purpose of total emission control.<sup>25</sup>

The PITI assessment group is pleased to see that VOCs (substances that are harmful to the environment and human health; VOCs are also a precursor of ozone and PM2.5, and play a large role in modifying atmospheric chemistry) have garnered significant attention by the government.<sup>26</sup> As such, we anticipate other hazardous atmospheric pollutants to be effectively controlled within the time frame of the “Thirteenth Five Year Plan.”

25. Ministry of Environmental Protection Officer: the “Ten Measures for Water” Has Been Reviewed and Passed as Law During a Routine Meeting of the State Council, Accessed on July 24th, 2015. Shanghai Stocks and Bonds Newspaper, China Stocks and Bonds Net, Published on March 27th, 2015.

Note: the “Ten Measures for Water” (Shui Shi Tiao) is an abbreviation of Shui Wuran Fangzhi Xingdong Jihua 水污染防治行动计划, or the “Water Pollution Prevention Action Plan.”

26. “What does the trial VOCs emissions fine mean for the future?” [http://www.cenews.com.cn/gd/gdfx/201507/t20150720\\_795228.html](http://www.cenews.com.cn/gd/gdfx/201507/t20150720_795228.html), published on July 20th, 2015, accessed on July 24th, 2015.

With regards to how information disclosure can help promote the reduction of pollutant emissions, we should learn from the experience of high-income countries in Europe, Canada and the U.S., and Japan, who have established pollution release and transfer register (PRTR) systems. We advise that the MEP in China establish a PRTR system, and also to create a unified platform for disseminating and publishing information on emissions and transfers of toxic chemicals from industrial factories and other facilities within the country, thus allowing the general public to be involved in supervision.

In the past six years that we have conducted PITI evaluations, we learned that Tianjin's Economic Technological Development Area (TEDA) has indeed attempted to borrow best practices from abroad, and has begun to establish a PRTR system. Furthermore, environmental groups have promoted supply chain management strategies to push for the acceptance of a PRTR system in China.

## 1.2 Innovative Cases

### Tianjin's Economic and Technological Development Area (TEDA) Environmental Information Disclosure

In 2009, TEDA first announced that the area would disclose enterprise environmental information; the initiative has continued each year for the past seven years.

Four years later, in 2013, TEDA's Eco Center, TEDA's Environmental Protection Association, the Institute of Public and Environmental Affairs, and Sweden's International Institute for Industrial Environmental Economics at Lund University co-hosted the "China-Europe Environmental Governance Program: Tianjin Binhai New Area Enterprise Environmental Information Disclosure Experimental Program," with the plan of drawing on the European Union's relevant experience and management expertise to create a PRTR system within TEDA. The program encourages the enterprises in TEDA to voluntarily disclose environmental information, to improve their environmental management strategies, and to reduce pollutant emissions.

Figure 3-23 TEDA Enterprise Emission Information Disclosure

(Source: [http://prtr.ecoteda.org/html/EGP/XMCG22678/List/list\\_0.htm](http://prtr.ecoteda.org/html/EGP/XMCG22678/List/list_0.htm), Screenshot time, 7/30/2015)

污染物名称		2014			2013	2012	2011
		总量要求	排放量	数据来源	排放量	排放量	排放量
废水总排放量		---	19821.6	用水量80%	40673.6	30057.6	6000
常规污染物	COD	1.58	1.69		0.848	0.4058	0.096
	氨氮	---	0.03		0.04149	0.01515	0.00432
	BOD <sub>5</sub>	---	0.652		0.41162	0.07457	0.04368
	悬浮物	---	0.111		0.28472	0.23295	0.03198
	总磷	---	0.014		0.02603	0.00463	0.0039
特征污染物		---	---	---	---	---	

废物名称	废物类别	主要有害成分	形态 (固/液/气)	产生来源	年排放量/吨				处置方式
					2014	2013	2012	2011	
固体废泡沫	HW13	树脂	固态	报废	1.36	4.37	3.1	3.33	交有资质的公司处理 (天津合佳威立雅环境服务有限公司)
废溶液 【试验废液/含苯废液】	HW49	聚氨酯有机溶剂	液态	试验报废/清洗设备	2.46	0.61	1.35	1.6	
废固化剂	HW49	聚氨酯树脂	液态	固化废弃	5	5.09	4.69	3	
20L桶 【20L铁桶、塑料桶】	HW49	废有机溶剂	固态	挂壁残留	2.44	0.19	0.97	1.31	
废树脂(粘剂)	HW49	聚氨酯树脂	液态	过期报废	5.75	0.15	0.38	3.5	
EA废液 【乙酸乙酯废液】	HW42	乙酸乙酯、聚氨酯	液态	洗釜	51.91	46.19	51.76	59.36	
TDI空桶	HW38	异氰酸酯	固态	挂壁残留	1.26	2.78	1.927	1.39	
废200L助剂铁桶	HW49	废有机溶剂	固态	挂壁残留	2.1	12.89	8.96	0	
废液(试液) 【废溶剂】	HW42	乙酸乙酯、苯醚等有机溶剂	液态	试验报废	0	0.048	0	0.34	
<5L桶 【废5升铁桶/废试剂瓶】	HW49	废有机溶剂	固态	挂壁残留/试验报废	0.03	0.07	0.28	0.19	
废活性炭	HW06	乙酸乙酯等有机溶剂	固态	吸附后产生	0	1.1	0	0.3	
甲基多苯异氰酸酯	HW49	异氰酸酯	液态	过期报废	0	0.04	0	0	
废油	HW08	油	液态	更换	0	0	0.11	0.36	
废灯管	HW29	汞	固态	报废	0	0.036	0.032	0	
废普通电池	HW23	含锌锰普通干电池	固态	报废	0	0.008	0.0006	0	
废硒鼓墨盒	HW49	墨	固态	报废	0	0.01	0.02	0	

The number of enterprises disclosing information on pollution and pollutants has increased from an initial number of 29 enterprises in 2013 to 129 enterprises in 2015. These participating enterprises regularly publish environmental information disclosure reports to inform the public about the emission and transfer of primary pollutants and characteristic pollutants.

Since 2013, IPE and several other partner organizations have studied the European PRTR and the U.S. TRI (Toxics Release Inventory) systems, with the plan of introducing best practices from abroad to China. With this goal in mind, IPE and its partner organizations have developed and improved upon a PRTR information disclosure system that works in accordance with China's existing laws and regulatory requirements, while keeping in mind the nation's current pollution challenges. The organizations have also created a list of pollutants and hazardous chemicals that are top priorities for the Chinese government to address.

Beginning in August 2013, IPE and its partner organizations developed and launched a PRTR information disclosure online data platform, allowing various industries and enterprises to publish PRTR data online. Since the launch of the platform, IPE has worked tirelessly to upgrade the system. During the first year of the platform's launch, IPE and its partner organizations were successful in convincing ten well-known international brands to push their suppliers to self-disclose emissions and pollutant data. These ten brands include: Adidas, H&M, Apple, Samsung, M&S (Marks and Spencer), Target, Burberry, Levi's, Puma, and KAO. 614 suppliers have begun to fill out PRTR documents, while 391 suppliers have already completed PRTR reports. With these developments, we can say that an accessible PRTR system is underway.

Figure 3-24 Piotek Computer (Suzhou) Ltd. Comprehensive Public Pollutant Disclosure

一般固体废物及危险废物 //								
指标	危险名录类别代码	数值	数据来源		提供方式	指标	危险名录类别代码	数值
固体废物产生量	-	19001.532 吨	F	-	企业填报	危险废物产生量	-	15818.061 吨
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
剥蚀液	HW22	820.48吨	F	VIII	铜离子			
		当年转移量	数据来源	计算方法	转移对象			
		820.48吨	F	IX	昆山市大洋环境净化有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
酸性蚀刻液	HW22	5372.68吨	F	VIII	铜			
		当年转移量	数据来源	计算方法	转移对象			
		5372.68吨	F	IX	昆山市大洋环境净化有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
PP胶片	HW13	89.98吨	F	VIII	树脂			
		当年转移量	数据来源	计算方法	转移对象			
		89.98吨	F	IX	苏州工业园区中兴废物处置有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
原滤芯	HW06	74.4165吨	F	VIII	有机溶剂5%			
		当年转移量	数据来源	计算方法	转移对象			
		74.4165吨	F	IX	苏州工业园区中兴废物处置有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
原滤网	HW06	8.12吨	F	VIII	有机溶剂5%			
		当年转移量	数据来源	计算方法	转移对象			
		8.12吨	F	IX	苏州工业园区中兴废物处置有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
显影液、显影液	HW16	14.934吨	F	VIII	感光物质10%			
		当年转移量	数据来源	计算方法	转移对象			
		14.934吨	F	IX	苏州市康洁物资再生资源有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
压合后边框	HW49	110吨	F	VIII	铜、镀锌布			
		当年转移量	数据来源	计算方法	转移对象			
		110吨	F	IX	苏州市吴中再生资源有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
成型边框（少铜）	HW49	174.76吨	F	VIII	铜、树脂			
		当年转移量	数据来源	计算方法	转移对象			
		174.76吨	F	IX	苏州市荣望环保科技有限公司			
危险废物名称	危险名录类别代码	当年生产量	数据来源	计算方法	主要有害成分			
成型边框（多铜）	HW49	598.06吨	F	VIII	铜、树脂			
		当年转移量	数据来源	计算方法	转移对象			
		598.06吨	F	IX	苏州市荣望环保科技有限公司			

### *Case Study: A Synopsis of the Implementation of “Measures for the Environmental Management and Registration of Hazardous Chemicals (Trial Version)”*

Under the MEP’s Twenty-Second Order, otherwise known as the “Measures for the Environmental Registration of Hazardous Chemicals (Trial Version),” the twenty-third and twenty-second clause stipulates that: “Enterprises producing and using hazardous chemical substances should establish a hazardous chemical substances accounting system. This accounting system should include a record of all types of hazardous chemicals produced and used by the enterprise, as well as the amount of hazardous chemicals produced. The accounting system should keep track of where the enterprise sells its hazardous chemical substances, and where the enterprise sources its primary resources. The accounting system should also publish information on the enterprise’s pollutant emissions, and other environmental management information records. Information and data published on the accounting system should be filed and kept as long-term records.”<sup>27</sup>

Enterprises producing and using hazardous chemical substances should publish an annual hazardous chemicals environmental management report in January every year. The report should allow the public to know what specific hazardous chemicals, as well as what type of hazardous chemical, were produced and used in the facility. The report ought to disclose the potential side effects of exposure to the hazardous chemicals, and include related information on hazardous chemical emissions and chemical accidents. Efforts to reduce and control pollutant emissions should be disclosed in the report as well.

Enterprises that produce and utilize key state-monitored hazardous chemical substances should also publicly disclose these key hazardous chemical substances, and disclose information on characteristic pollutant release, transfer and monitoring results.

With the Minamata Convention on Mercury’s provisions about to take effect, the “Measures for the Environmental Management Registration of Hazardous Chemicals (for Trial Implementation),” and the “Environmental Management of Key Hazardous Chemicals Directory,” the NRDC and the “Nature University” (an environmental NGO based in Beijing), chose to monitor the information disclosure of two key environmental management hazardous chemicals, mercury and mercuric chloride, in China.<sup>28</sup> The NRDC and the Nature University selected 46 enterprises that are involved with the production and use of mercury in an industrial setting to investigate, including 35 PVC’s mercury-catalysts production plants and recycling plants, 7 plants that produce mercury-containing medical equipment, and 4 mercury-ore processing facilities.

- In particular, 16 enterprises are key state-monitored pollution sources.
- IPE conducted an online investigation of these 16 enterprises’ annual pollution emissions data publications. IPE’s investigation for the year 2014 ended on March 5, 2015, and found that 7 companies shared their 2014 pollution emissions self-monitoring report with the public. Only four out of the seven companies released information on annual emissions volume; only Hongfa Mercury-Containing Products Disposal Ltd, a company based in Tongren City (in Guizhou Province) released data on mercury emissions to the public. An example of data that was published and shared to the public is as follows:

27. [http://www.mep.gov.cn/gkml/hbb/bl/201210/t20121016\\_238481.htm](http://www.mep.gov.cn/gkml/hbb/bl/201210/t20121016_238481.htm) (retrieved on Sept 21st, 2015)

28. “Directory of the Environmental Management of Key Hazardous Chemicals,” Circular from the Office of the MEP, [http://www.zhb.gov.cn/gkml/hbb/bgt/201404/t20140409\\_270296.htm](http://www.zhb.gov.cn/gkml/hbb/bgt/201404/t20140409_270296.htm) (retrieved on July 24th 2015)

Water use for mercury extraction:

- Each furnace is 1.5m<sup>3</sup> in volume, there are 5 furnaces at the facility, and each facility produces mercury ten times a year. 1.5m<sup>3</sup> \* 5 furnaces \* 10 times =75 tons of water used to extract mercury
- Total Mercury Emissions:  
Mercury Emissions rate \* Number of hours the facility is in operation per year =0.0002kg/h \* 269d \* 24h ÷ 1000=0.0013 tons
- Annual total waste disposal of mercuric chloride catalyst = 3757.95 tons  
Total production of waste residue =3757.95 \* 75%=2818.46 tons

All the waste residues were sealed in an industrial waste landfill, and the surface layer was periodically covered.<sup>29</sup>

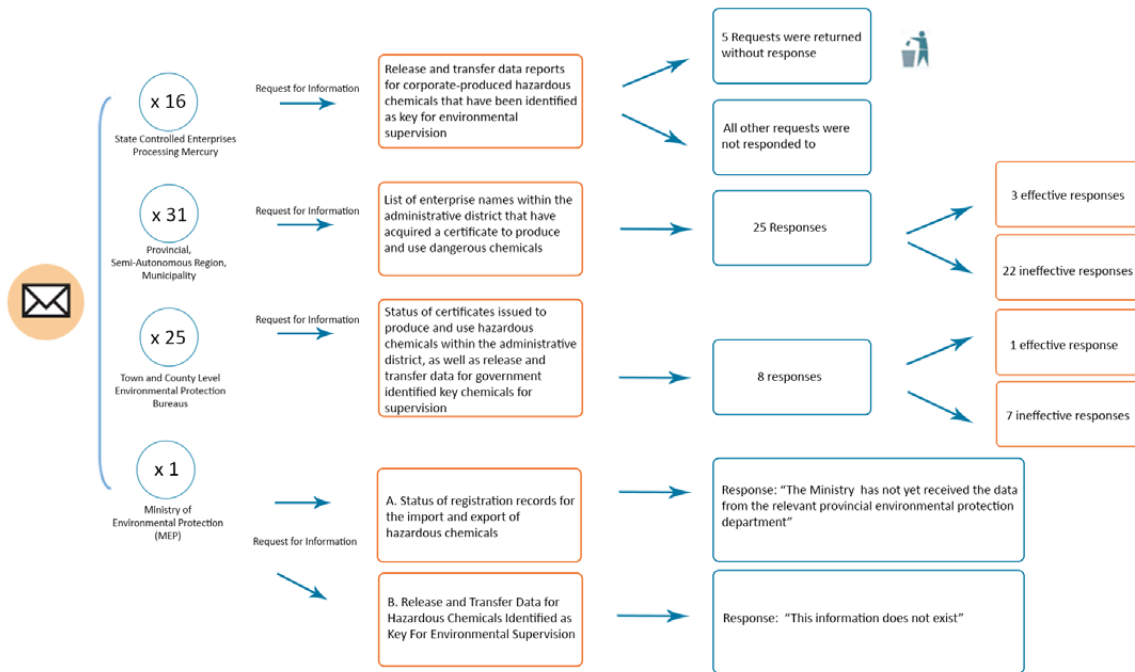
Figure 3-25 16 Annual Pollutant Data Disclosure for Key Pollution Source Companies Involved in the Production and Use of Mercury

Province	Type of Enterprise	Enterprise Name	Were Self-Monitoring Reports for 2014 Disclosed? (Yes/ No)	Was Pollutant Emission Data Disclosed? (Yes/ No)	Was Mercury Related Data Disclosed? (Yes/ No)
Inner Mongolia	PVC	Inner Mongolia Yihua Chemical Engineering Co.Ltd	√	√	X
Shandong	PVC	Shangdong Xinlong Technology Co.Ltd	√	√	X
Shanxi	Mercuric Ore	Shaanxi Mercury Antimony Technology Co, Ltd, Xunyang Branch Office ( Mercury Ore)	X	X	X
Hunan	PVC Mercury Catalyst	Xinhuang Xinzhong Chemical Engineering Co.Ltd	X	X	X
Guizhou	PVC Mercury Catalyst	Tongren City Wanshan District Hongfa Chemical Engineering Co, Ltd.	√	X	X
Guizhou	PVC Mercury Catalyst	Tongren City Hongfa Mercuric Products Disposition Co, Ltd.	√	√	√
Guizhou	PVC Mercury Catalyst	Hongling Mercury Industry Co.Ltd	√	X	X
Guizhou	PVC Mercury Catalyst	Tongren City Wanshan District Jinxin Mercury Industry Co. Ltd	X	X	X
Guizhou	PVC Mercury Catalyst	Tongren City Yinhu Chemical Engineering Mercuric Products Disposition Industry	X	X	X
Guizhou	PVC Mercury Catalyst	Guizhou Lantian Substial Wastes Disposition Co. Ltd	X	X	X
Guizhou	PVC Mercury Catalyst	Guizhou Zhongli Techonlogy Environmental Protection Co. Ltd	X	X	X
Guizhou	PVC Mercury Catalyst	Guizhou Hongjing Mercury Industry Co. Ltd	X	X	X
Guizhou	Mercury Ore	Tongren City Jinxin Mining Industry Co, Ltd	√	X	X
Guizhou	Mercury Ore	Wuchuan autonomous Country Silver Light Minerals Co. Ltd	√	√	X
Ningxia	PVC Mercury Catalyst	Ningxia Province Jinhai Chuangke Chemical Engineering Technology Co.Ltd	X	X	X
Xinjiang	PVC Mercury Catalyst	Xinjiang Tianye (Group) Co. Ltd	X	X	X

29. Self-monitoring annual report of Hongfa Mercury-containing Disposal Products Treatment Ltd., 2014, the state-controlled enterprise emissions monitoring information net work of Guizhou Province, 2015/1/8. [http://www.gzqyjpc.com/qyxxgk/nb/201501/t20150108\\_28082.html](http://www.gzqyjpc.com/qyxxgk/nb/201501/t20150108_28082.html) (retrieved on September 15th 2015)

At the end of March 2015, the NRDC and Nature University petitioned for information disclosure in an effort to better understand the law “Measures for the Environmental Management Registration of Hazardous Chemicals (for Trial Implementation),” and how it is actually implemented “on the ground” in China. The information disclosure petition process concluded on June 2, 2015, and yielded the following findings:

Figure 3-26 Responses to Request for Information



“Measures for the Environmental Management Registration of Hazardous Chemicals (for Trial Implementation),” provided a prototype for a Pollutant Release and Transfer Register-PRTR system that many other countries use. However, conducting online research on hazardous chemical substances and petitioning for information disclosure remain difficult, given that many regions have yet to implement the measures, or are just beginning to develop registration systems for hazardous chemicals in accordance with the law. We recommend that government departments explicitly outline a detailed implementation plan for the law, which would help encourage the aforementioned governmental departments to carry out the provisions of the law.

## 2. Cleaner Production Audits

### 2.1 Key Improvements

During our evaluation process, 101 cities out of the 120 cities (or 84.2% of all cities) we evaluated had published a list of companies that are subject to mandatory cleaner production audit requirements. The majority of the lists were released by provincial level EPBs.

During our assessment period, enterprises subject to mandatory cleaner production in Shenyang, Guilin, Yantai, as well as Handan City published pollutant emissions data. A noteworthy achievement to highlight is that for the past six years (since 2009), Shenyang EPB has publicly shared data on key pollutant emissions from enterprises subject to mandatory cleaner production audits.

## 2.2 Existing Shortcomings

This year’s average score of 29.5% for cities with mandatory cleaner production audits remains low, and is around the same score reported in past PITI assessments. The fundamental reason for this is that many of the enterprises subject to mandatory cleaner production audits have yet to completely disclose information on pollutant emissions.

## IV. EIA Information

### 1. Key Improvement: More Than 75.8% of Evaluated Cities Disclosed the Full Text of EIA Reports

After the Guidelines for the Disclosure of Government Information in Connection with the Environmental Impact Assessments of Construction Projects (for trial implementation) went into effect on January 1st, 2014, local EPBs across China published the entire texts of EIAs via special designated sections on their respective government websites, and solicited public opinion during the EIA’s public consultation period. During this assessment period, 91 out of 120 assessed cities publicly disclosed the full text of EIAs, compared to the 49 cities that disclosed the full text of EIAs during last year’s assessment period. This is a significant improvement in performance for the indicator, “EIA Full Text Disclosure.”

Figure 3-27 EIA Disclosure Comparison between Two Assessment Periods

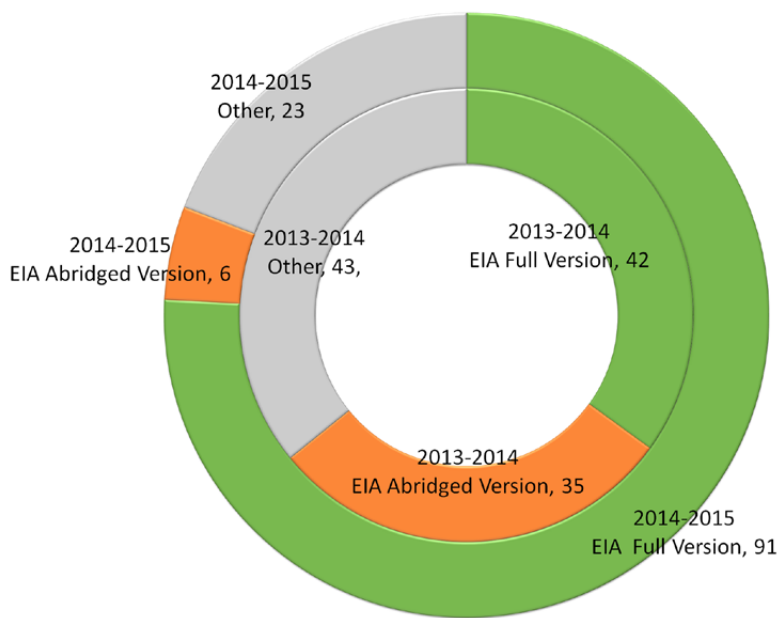
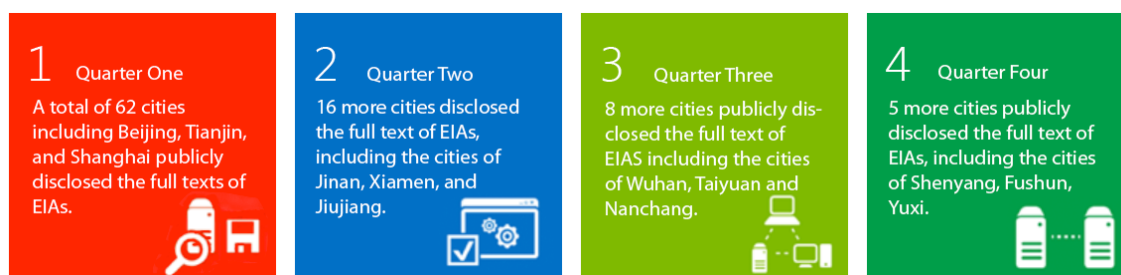




Figure 3-28 EIA Full Text Disclosure for Cities in 2014



## 2. Existing Shortcomings: Greater Public Participation Is Needed During the EIA Process

During the Lianghui, the MEP Minister Chen Jining stated: “The public should be allowed to follow the entire EIA process, from the initial approval of the assessment, throughout the investigation procedure, to the project’s completion. In order to implement a fully transparent EIA, we need to uphold the right of the public to participate.”<sup>30</sup> Disclosing the full text of EIAs is an important prerequisite for meaningful public supervision, rational (lixing) public participation, and is an important factor in producing a high-quality EIA.

Public participation during the EIA process is critical to ensuring a reciprocal dialogue between the EIA Working Group and the public. The fundamental goal of public participation throughout the EIA process is to solicit feedback from the public on how projected projects will impact society and the natural environment. Feedback from the public will also take into consideration the individuals, groups, and communities who are potentially affected by the proposal, as well as the wellbeing of other societal groups. Furthermore, public participation will ensure that stakeholders can provide feedback on the project prior to construction, as well as the impact of the project on society and the natural environment both during and after construction. In other words, soliciting public opinion on an EIA from a wide-range of stakeholders plays an important role in the feasibility study of a proposed project. (Many countries around the world attach high-level importance to public participation within the EIA process for these reasons).<sup>31</sup>

Questionnaire surveys are the primary method used to solicit public participation during the EIA process. Unfortunately, the questions on the survey are often unclear, and often include insufficient and misleading information. These problems reduce the accuracy, effectiveness, and value of public participation in the EIA process.<sup>32</sup> Recent media coverage of a counterfeit EIA released by the Fujian Dingxin Industrial Corporation (a subsidiary of a major metal smelting company) illustrates how easy it is to forge EIA public participation surveys under the current questionnaire survey model in China. In accordance with EIA procedure in the country, China’s current public participation period should be a minimum of 10 days, but according to the results of our last two assessment periods, a large number of places in China only had 7 business days to comment within the 10-day public comment period. As a result, the stakeholders have very little

30. Ministry of Environmental Protection Minister Chen Jining Responds to Reporters’ Inquiries, People’s Daily Web, published March 7th, 2015, [http://news.qq.com/a/20150307/031944\\_2.htm](http://news.qq.com/a/20150307/031944_2.htm), accessed July 24th, 2015.

31. “A Comparison of Chinese and International Environmental Impact Assessment Public Participation Systems” by Du Juan, *Sci-Tech Information Development and Economy*, 2009, Vol. 19, No. 22.

32. An Analysis of the Problem With Environmental Impact Assessments’ Public Participation and Questionnaire Survey Model, by Xing Wenting, *Environment and Sustainable Development*, 2010, Vol. 5.

chance for meaningful participation in the EIA process given the short duration of the public comment period.

To summarize, China's current EIA public participation process exists more as a formality rather than as a tool for the EIA evaluation process. This is due to the fact that the number of participants and avenues for public participation are limited, and because the time period for receiving public comment is short.

Figure 3-29 Comparison of EIA Processes within China, the U.S.A., and France

Item	China	U.S.A.	France
Stakeholders within the Public Participation Process <sup>33,34</sup>	<ol style="list-style-type: none"> <li>1. Governmental departments, experts, individuals or groups directly influenced by the plan or project in the planning process</li> <li>2. Representatives of the public are: chosen by the construction companies, EIA organizations, or the MEP, and are not elected by the general public</li> <li>3. Groups: are usually the residential assemblies or residential representatives; environmental groups are not included.</li> </ol>	<ol style="list-style-type: none"> <li>1. Directly affected members of the public: the members of the public whose interest will be directly affected by the development or construction</li> <li>2. Indirectly affected members of the public: members of the public who are situated at, or near the development/ construction site</li> <li>3. Interested citizens: applicants who have applied and are interested in development/ construction</li> <li>4. Government Departments or experts: those who possess professional knowledge about the EIA and those federal departments or individuals possessing legal knowledge about the EIA</li> <li>5. Environmental NGOs</li> </ol>	<ol style="list-style-type: none"> <li>1. The public, individuals within the governmental/ political sphere, industry experts, and NGOs</li> </ol>
Methods of Public Participation <sup>35,36</sup>	Public opinion surveys, expert opinion consultations, informal discussions, discussion meetings, public hearings, among other methods	Methods of participation varies according to the different stages of the EIA process, however, the public hearing is the most important, as well as public participation in creating detailed rules for how to proceed with a proposed project.	Multiple methods: the widespread use of the media (newspapers, the radio, television), to request interviews, discussion meetings, public debates, etc. Among these, the most distinct characteristic is organized public debates; individuals that attend these debates include political figures, industry analysts, and NGO representatives which are to make up 1/3 of the total attendees, respectively, in order to listen to every aspect of the proposed project, to assess its benefits, and to include the point of views of all stakeholders to the greatest extent possible
Time Limits on Public Participation <sup>37,38</sup>	10 Days or greater	First, the public has a 90 day public comment period for the first draft of the Environmental Impact Statement (EIS), The leading agency will produce a final draft in response, and the public has another 30 day public comment period to submit their opinions on the final draft	15 days before the public comment period starts, the public is notified through the media (i.e. television, newspaper, and the radio) about the goal of the EIA. The name and status of the investigator, the time and place of the survey, will all be broadcasted. The period for public comment cannot be shorter than 1 month.

33. "Funded by the EU' EU-China Environmental Governance Project (EGP) Issues Report," An Analysis of the Problems with Public Participation Methods in Environmental Impact Assessments in China.

34. Public Participation in Environmental Impact Assessments: A Handbook of International Experience by Xu Zihan, Zhu Chaowei, Li Xiang, Global Survey

35. "Funded by the EU' EU-China Environmental Governance Project (EGP) Issues Report," An Analysis of the Problems with Public Participation Methods in Environmental Impact Assessments in China.

36. Public Participation in Environmental Impact Assessments: A Handbook of International Experience by Xu Zihan, Zhu Chaowei, Li Xiang, Global Outlook

37. "A Comparison of Chinese and International Environmental Impact Assessment Public Participation Systems" *ChinaEIA process in Tech Information Development and Economy*, 2009, Vol. 19, No. 22.

38. Public Participation in Environmental Impact Assessments: A Handbook of International Experience by Xu Zihan, Zhu Chaowei, Li Xiang, Global Outlook

By including an opportunity for different interest groups and stakeholders to debate, the EIA process becomes more comprehensive and scientifically rigorous. According to our assessment, 29 out of 120 evaluated cities have had EIA public hearings within the last three years, comprising 24.17% of all the assessed cities. An example of the steps taken to include more public participation in the EIA process can be seen in Yancheng City in Jiangsu Province, Guizhou Province, and the municipality of Beijing, where these places' environmental governing bodies gave the public advance notice about EIA public hearings through several media channels. This April, the EPB based in Changping District of Beijing invited environmental organizations, such as Nature University and others groups to attend the EIA public hearing for the Asuwei Circular Economy Park Project, signifying a breakthrough in the inclusion of more stakeholders in EIA public participation.

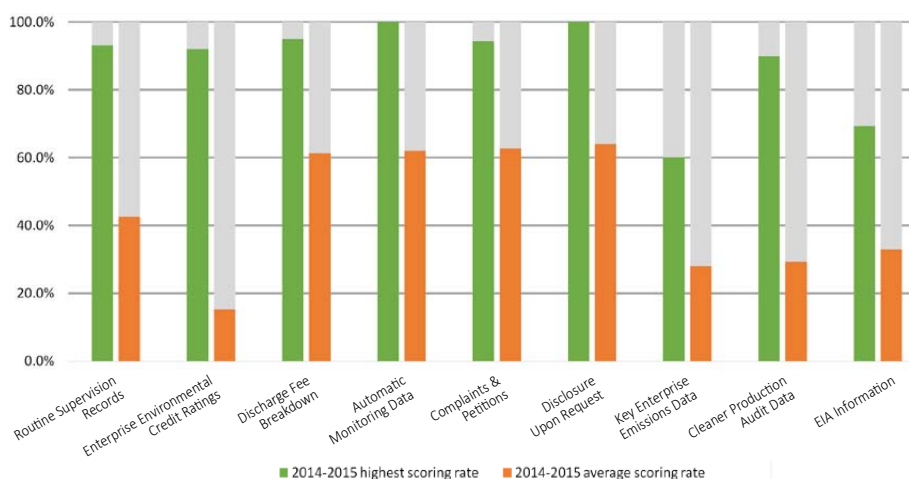
## Section 3: All-Star Lineup

After compiling the scores for the nine assessment criteria, we have created an “all-star lineup” of top-performing cities. The highest score for an “all-star” city was 86.1 points, which is 4.5 points higher than last year’s highest scoring “all-star” city. The winners of each assessment category can be seen in Figure 3-30. There are 52 cities that have scored at the top of the list, 19 more than the previous assessment year.<sup>39</sup> Except for the cities at the top of the list, seven of the nine assessment categories have scores of 90% or higher, which speaks to improvements within public environmental information disclosure, as well as the feasibility of the PITI -standard.

Figure 3-30 “All-Star” Lineup

Categories	Routine Supervision Records (23 Points)	Enterprise Environmental Credit Ratings (5 Points)	Discharge Fee Breakdown (2 Points)	Automatic Monitoring Data (20 Points)	Complaints & Petitions (7 Points)	Disclosure Upon Request (8 Points)	Key Enterprise Emissions Data (16 Points)	Cleaner Production Audit Data (4 Points)	EIA Information (15 Point)
Top Scoring Areas	Beijing, Dongguan	Wenzhou, Nanjing, Taizhou, Changzhou	Wenzhou, Ningbo, Shaoxing	Shandong <sup>40</sup>	Qingdao, Yantai and 14 other cities <sup>41</sup>	Qingdao, Ningbo and 18 other cities <sup>42</sup>	Shanghai	Guilin	Yancheng
Score	21.4	4.6	1.9	20	6.6	8	9.6	3.6	10.4
Scoring rate	93.04%	92%	95%	100%	94.29%	100%	60%	90%	69.33%

Figure 3-31 2014-2015 Program Average Score and Highest Score Comparison Graph



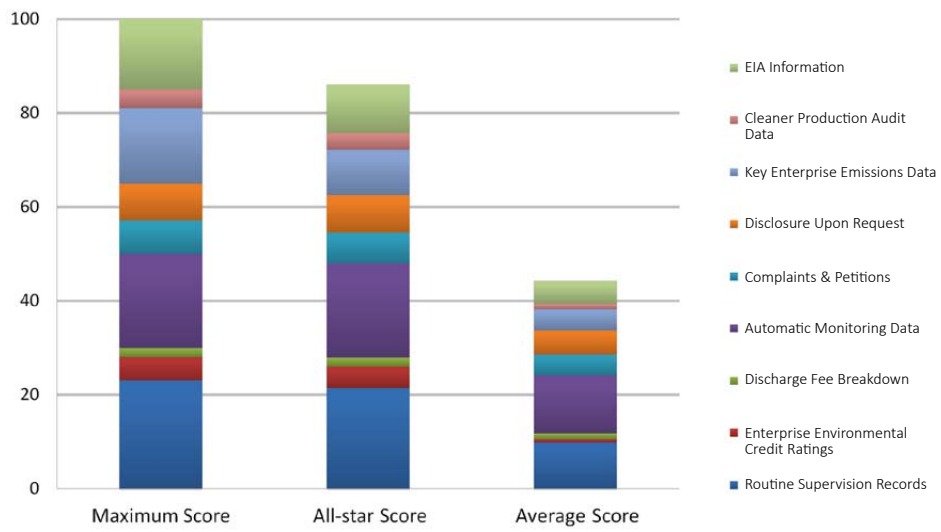
39. Out of the 52 cities, several were ranked as top performers in multiple PITI evaluation categories, after accounting for double counting.

40. The 9 evaluated cities of Shandong, with the exception of Rizhao City.

41. Qingdao, Yantai, Ma'anshan, Rizhao, Ningbo, Wuhan, Fuzhou, Hefei, Nanjing, Lanzhou, Jiaozuo, Shenzhen, Dongguan, Madanjiang.

42. Qingdao, Ningbo, Hefei, Dongguan, Wuhu, Beijing, Quanzhou, Suzhou, Changzhou, Chongqing, Xiamen, Jianyungang, Yueyang, Foshan, Anyang, Weinan, Tianjin, Jilin.

Figure 3-32 "All-Star" Comparison



# Chapter 4 Recommendations

This year's PITI assessments yield the following key findings and recommendations:

1. Local EPBs further recognize the importance of public information disclosure. Aside from simply meeting the requirements of the law and directives set forth by higher-level bureaus in government, information disclosure should also fulfill the public's right to know. And the government should work towards mobilizing the public to participate, and push for important environmental supervision strategies that will effectively reduce pollution.
2. Local EPBs further develop a unified information platform, which will facilitate comprehensive, timely, and complete information dissemination. A unified platform for information disclosure will also make it convenient for the general public to access and to use.
3. Local EPBS strategically utilize new media, which will allow the public to easily access information from mobile platforms, such as social media sites Weibo and Wechat. This will help social media sites and government departments develop a collaborative relationship on the basis of information disclosure.
4. In order to provide valuable data for environmental performance ratings, green securities, sustainable supply chains, environmental liability insurance, and green economy and financial policies, we recommend EPBs push strongly for the improvement of pollution information disclosure.
5. Environmental protection departments and bureaus strongly encourage enterprises to play a greater role in pollutant information disclosure. This will allow enterprises to develop a sense of environmental responsibility and social responsibility, improve their ability to communicate with the public, and achieve self-driven reduction in pollution.

# Appendix 1:

## Development of Daily Fines and International Experience with Information Disclosure

### Daily Fine Punishment Records, New Law Enforcement Structures, More Comprehensive Requirements, Complete Disclosure

Lawbreakers cannot be allowed to profit from illegal activity. Although a self-evident statement, this fundamental principle must be upheld. In criminal law, this principle is used as an effective punishment against lawbreakers and is also an effective deterrent measure against repeat offenders.

Records of daily fines are an effective control and punishment mechanism for entities who repeatedly fail to comply with environmental laws. In fact, daily fines laws are implemented in many different countries.

There are two major models of issuing daily penalties. In the first model, fines are issued from the first day illegal behavior occurs to the day that behavior comes into legal compliance. Under this model each day of non-compliance is counted as its own violation. The other daily fine model is based upon enforcement, where violation fines are imposed upon the discovery of a ‘first time violation,’ and then imposed again if the behavior remains uncorrected upon the next inspection. China’s new Environmental Protection Law (EPL) has implemented the second, or civil law model of daily fines.

Ever since amendments to the new EPL went into effect on January 1st, 2015, there has been a strong focus on implementing daily penalties for cases of non-compliance. The addition of strict penalties for failing to comply with environmental regulations and laws has strengthened the EPL. Before the amendments were made, the costs of law enforcement were high, and the costs incurred by offenders for breaking the law were low. The “no upper-ceiling for fines” provision is a clear example of how the amendments to the EPL have raised the cost that can be incurred for non-compliance, thus improving the ability for regulators to effectively supervise and regulate industry.

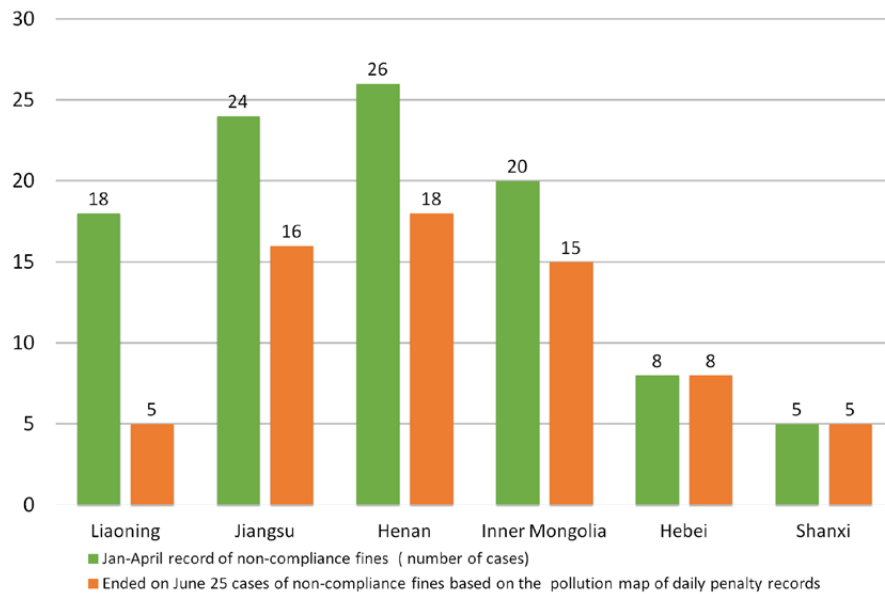
Following the introduction of the amendments to the EPL, Chongqing implemented daily penalties for non-compliance. Before the implementation of this legal mechanism, it has been reported that less than 20% of enterprises were motivated to correct illegal practices that were not in compliance with the law. After Chongqing began implementing daily fines, enterprises that have been self-motivated to correct illegal practices have been increasing every year, with about 90% of enterprises in compliance with the law at the present.<sup>43</sup>

According to information released by the MEP, 160 cases of daily penalties were issued between January to April of this year. The total amount of fines collected has reached 112,295,100 RMB.<sup>44</sup> Up to June 25th, 2015, IPE’s Pollution map has identified a total of 111 cases of daily penalties.

43. “Daily Penalties” strengthens the enforcement capacity of the EPB, Illumination Net (guangmingwang)-Time Channel, January 20th, 2015.

44. MEP Informs the Public on New Environmental Law, and Coherent Methods for Implementation, People’s Republic of China EPB, June 15th, 2015. Interview from 07/24/2015 [http://www.zhb.gov.cn/gkml/hbb/qt/201506/t20150615\\_303569.htm](http://www.zhb.gov.cn/gkml/hbb/qt/201506/t20150615_303569.htm)

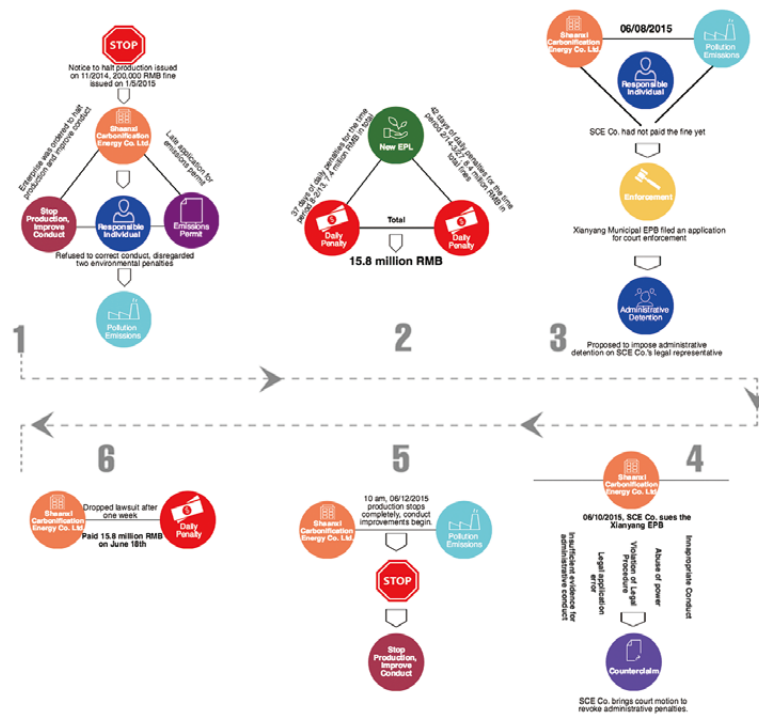
Appendix Figure 1-1 Disclosure of Daily Penalty Cases within Selected Areas



The disclosure of environmental supervision data empowers the public engagement in environmental enforcement and supervision. These measures contribute to enhancing the public's trust in the government's enforcement capacity and help strengthen the administration of environmental laws that relate specifically to environmental violations by enterprises. Taking daily penalty records from Shaanxi Carbonification Energy Co. Ltd as an example, from April 15th of this year, the Xianyang City EPB started to implement the daily penalty mechanism for the company. By June 8th, the company still had yet to hand in the fine, and the Xianyang EPB moved forward with compulsory enforcement, proposing administrative detainment upon the authorized corporate representative. On June 10th, the company appealed to the Xianyang EPB court to repeal the fines, but one week afterwards, the company withdrew the lawsuit and handed in 15,800,000 RMB of fines instead. After only two months of Xianyang City's EPB enforcing the daily penalty law, enterprises began to adhere to environmental law to a stronger degree. This example illustrates how information transparency and public supervision have already begun to provide a helping hand to relevant government departments.



Appendix Figure 1-2 Shaanxi Carbonification Energy Co. Ltd  
Daily Penalty Compliance Process



### International Cases of Daily Penalties: U.S. Daily Penalties Procedures

The primary environmental laws of the United States, for example The Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substances Control Act (TSCA), all include “Daily Penalties” for illegal environmental behavior. Under these laws, each day of non-compliance counts as a single offense. There is an established maximum threshold for the total dollar amount of daily penalties; the total amount fined is calculated based on the number of days of non-compliance, and the fine continues to increase with each day of non-compliance.

The maximum daily penalty is not a set value; rather, the fine is adjusted according to inflation. In the 1970s, during the developmental stages of U.S. environmental law, the maximum daily penalty amount was USD\$25,000. In 2009, the maximum daily penalty was USD\$37,000. As a result, the EPA could potentially issue penalty fines as high as USD\$1 million in the 1970s or USD\$10 million as of 2009.

Daily penalties fall under the category of civil penalties in U.S. Environmental Law. The EPA has drafted civil penalty policies that provide guidelines on how to assess fines. Generally speaking, the fine is assessed based on the consideration of two primary factors: the gravity of non-compliance and the total economic benefit resulting from non-compliance.

In regards to the two factors listed above, the policy on Civil Penalties provides detailed instructions or models for the fine assessment:

The preliminary penalty value is derived from an analysis of the gravity of non-compliance with the law and the total economic benefit resulting from non-compliance. On the basis of this preliminary number, investigations are conducted on the non-compliant entity according to the

entity's level of compliance with the law, and whether or not the entity was intentional or negligent in its non-compliance. The investigation will also consider the entity's history of noncompliance, as well as other factors, such as the severity of the case and other relevant public policies that may affect the fine. In the last step of the investigation, the penalty amount may be adjusted according to the ability of the non-compliant entity to pay, or based on any new factors discovered in the investigation process, and/or based on the terms of agreement for environmental compensation programs developed by the non-compliant entity.

If the lawbreaker fails to pay the fine, the EPA Administrator can refer to the Department of Justice to file an action for the fine, including imposing a fee amount for failure to pay the fee, adding an interest on the fee, or levying a quarterly additional fee for the failure to pay the fine.

Issuing daily penalties are not the only strategy for punishing non-compliant entities. The EPA can reach an agreement with the polluters, requiring non-compliant entities to implement additional environmental restoration and compensation programs, in addition to complying with the existing law.

## *Related Information Disclosure*

In the United States, law enforcement decisions and penalties for non-compliance with environmental laws are fully disclosed. The EPA relies on information disclosure to promote transparency in law enforcement. The EPA established a website called Enforcement and Compliance History Online (ECHO), in order to provide a comprehensive look at 800,000 facilities' compliance and enforcement information.<sup>45</sup> The database also allows the public to access the information for data retrieval processes. The data provided by ECHO includes information on pollution permits, inspection dates and discoveries, instances of illegal behavior, enforcement activities, and fines.

On the ECHO website, anyone can easily look up data based on address, postal code, or facility name. Search results can generate a map as well as provide analytic trends.

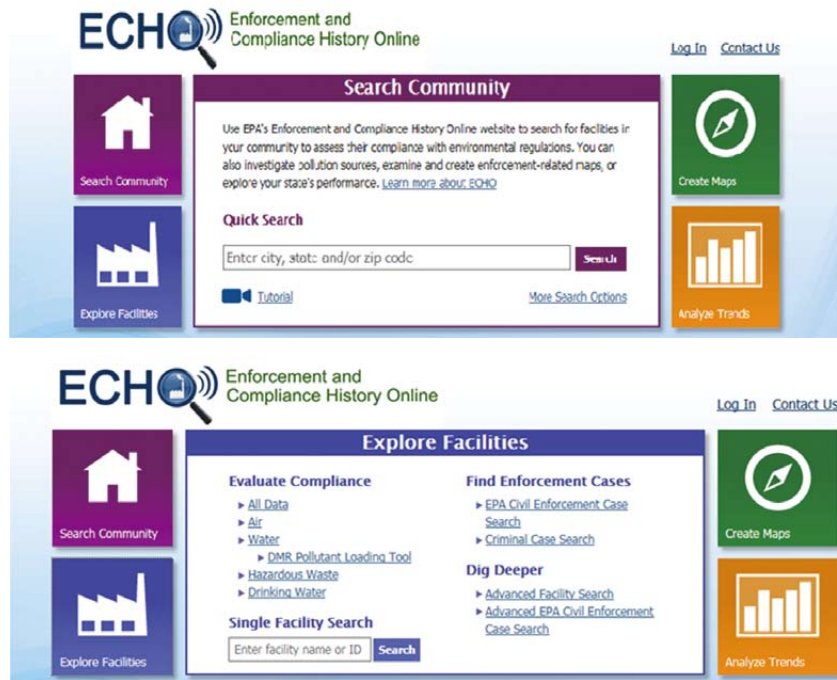
ECHO is a powerful database that can be used to search and retrieve localized information for a specific community. It provides valuable environmental data, such as information on facilities in a community currently in violation of environmental laws, illegal behavior recorded over the last three years, and official enforcement data from the last five years. ECHO also lists whether facilities or companies have emissions permits under the CAA, CWA, and whether these facilities or companies have a toxic substances reporting obligation.

When researching data on a specific facility, one can approach it from a variety of angles—the database allows one to selectively retrieve data on air quality, water quality, toxic waste, EPA enforcement actions, among other categories. ECHO provides a summary of the polluting facility, including about previous penalties or enforcement action. Furthermore, one can click on links to look over detailed compliance reports for the facility or EPA enforcement records, among other documents.

---

45. ECHO, <http://echo.epa.gov/> (Retrieved on 07/24/2015)

Appendix Figure 1-3 ECHO (Screenshot Time 07/15/2015)



### International Cases of Daily Penalties: U.K. Daily Penalties Procedures

In the United Kingdom, environmental laws also include provisions outlining daily penalties for continuous non-compliance for environmental regulations. For instance, the U.K. Clean Air Act stipulates that continuous non-compliance will result in a cumulative penalty. The Environmental Civil Sanctions (England) Order 2010 outlines concrete rules for issuing civil penalties.

Similar to what is done in the U.S., data on enforcement and penalties is also publicly disclosed in the U.K. The screenshot below illustrates how data on environmental enforcement is publicized in the U.K.

Appendix Figure 1-4 England Environmental Agency Enforcement Data Disclosure, Screenshot Time and Source: 07/15/2015, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/428596/LIT\\_5789.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/428596/LIT_5789.pdf)

#### Enforcement Undertakings (EUs)

The following table shows details of EUs accepted by the Environment Agency in the period between 1 September 2014 and 5 April 2015 (Note: This list also includes details of EUs accepted between 29 May 2014 and 31 August 2014 but not previously published):

Our Ref	Offeror	Legal Status	Offence(s) for which EU accepted	Proactive or Reactive Offer	Action(s) to stop offending, restore/remediate, come into compliance or benefit any person affected by the offence(s)	Action(s) that will secure equivalent benefit or improvement to the environment
A215	Abercrombie & Fitch (UK) Limited	Company	Failure to register [Regulation 40(1)(a)] and Failure to take reasonable steps to recover and recycle packaging waste [Regulation 40(1)(b)] under the Producer Responsibility Obligations (Packaging Waste) Regulations 2007	Reactive	Ongoing monitoring and Environment Agency cost recovery.	Financial contribution of £4,082.75 to Future Trees Trust

Regardless of which daily penalty scheme is followed, information disclosure is critical to establishing and maintaining a daily penalty system.

Information transparency helps regulators because by making enforcement and punishment decisions publicly available, polluters are aware of the subsequent consequences of breaking the law. Public disclosure of enforcement and penalty decisions also helps build public confidence in regulators and watchdogs.

# Appendix 2:

## Assessment Standards

### 1. Summary of Assessment Criteria

The PITI assessment's standards are predicated upon three key dimensions: first, the existing requirements of the latest environmental laws; second, example models and best-practices from international experience; and third, the public's right to a safe and healthy environment. The changes made to the PITI assessment criteria over the years are the result of frequent discussions with field experts who have sought to keep the PITI assessment consistent with the state of China's rapidly changing and improving environmental laws and regulations, as well as the current state of China's environmental crisis. The assessment criteria found below are the fruit of these discussions; these evaluation criteria seek to incorporate China's existing environmental laws and regulations, as well as standards supporting a long-term vision of strict environmental regulation and sustainability.

Appendix Graph 2-1 Assessment Criteria and Principal Laws and Regulations

Assessment Item		Assessment Subject	Principal Laws and Regulations
Environmental Supervision Information (50 points)	Routine Supervision Records (23 points)	<ul style="list-style-type: none"> <li>The disclosure status of data on enterprise excessive violations and other violation records, including administrative penalties, reports on actions for environmental enforcement, supervisory notices urging violators to come into compliance within a given timeframe, etc.</li> <li>The EPB's monitoring of pollution sources as well as the publication of these monitoring results, particularly the disclosure of data regarding excessive emissions from polluters.</li> </ul>	<ul style="list-style-type: none"> <li>Measures on Open Environmental Information (Trial) 2007;</li> <li>Measures on Self-Monitoring and Information Disclosure of Key State-Monitored Enterprises (Trial), and Measures for Key State-monitored Enterprise Supervisory Monitoring and Information Disclosure (Trial) (MEP Publication [2013] #81);</li> <li>Notification Concerning the Reinforcement of Pollution Source Environmental Supervisory Information Disclosure (MEP Publication [2013] #74);</li> </ul>
	Enterprise Environmental Credit Ratings (5 points)	<ul style="list-style-type: none"> <li>Enterprise Environmental Credit Ratings, which are evaluated on the basis of industry environmental activity as well as the publicized results of disclosure for enterprises rated 'yellow' or lower. (Translator note: Enterprises not performing well.)</li> </ul>	<ul style="list-style-type: none"> <li>Opinion on Accelerating the Implementation of the Enterprise Environmental Performance Assessment System (MEP Publication [2005] #125);</li> <li>Enterprise Environmental Credit Evaluation Measures (Trial) (MEP Publication [2013] #150);</li> <li>Notification Concerning the Reinforcement of Pollution Source Environmental Supervisory Information Disclosure (MEP Publication [2013] #74)</li> </ul>
	Discharge Fee Breakdown (2 points)	<ul style="list-style-type: none"> <li>The publication of emissions fees levied against polluters, including pollution fee incidents, specific pollutants emitted, emission concentration, emission volume, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Measures on Open Environmental Information (Trial), 2007</li> <li>Notification Concerning the Reinforcement of Pollution Source Environmental Supervision Information Disclosure (MEP Publication [2013] #74)</li> </ul>

	Automatic Monitoring Data Disclosure (20 points)	<ul style="list-style-type: none"> <li>This assessment area focuses on the information obtained through provincial-level EPB self-monitoring platforms and their subsequent platform development through the evaluation of the disclosure for total volume of effluent emissions into air and water, pollution concentration, applicable emission limit, as well as the status of compliance, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Measures on Self-Monitoring and Information Disclosure of Key State-Monitored Enterprises (Trial), and “Measures for Key State-monitored Enterprise Supervisory Monitoring and Information Disclosure (Trial) (MEP Publication [2013] #81);</li> <li>Notification Concerning the Reinforcement of Pollution Source Environmental Supervisory Information Disclosure (MEP Publication [2013] #74)</li> </ul>
Interactive Response (15 Points)	Complaints & Petitions (7 points)	<ul style="list-style-type: none"> <li>This area examines the disclosure of information on the handling of environmental petitions and complaints received by EPBs and their resolution results, including the subject of the petitions and complaints, the object of the complaint (the enterprise), whether or not the case has been accepted by the EPB, the status of the investigation, disclosure of the resolution results, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Notification Concerning the Reinforcement of Pollution Source Environmental Supervisory Information Disclosure (MEP Publication [2013] #74);</li> <li>Measures on Open Environmental Information (Trial), 2007</li> </ul>
	Disclosure Upon Request (8 points)	<ul style="list-style-type: none"> <li>Whether or not the EPB has set up a regular and complete system for response. The assessment group will score the EPB on the basis of their process and responses to requests for information.</li> </ul>	<ul style="list-style-type: none"> <li>Measures on Open Environmental Information (Trial), 2007</li> </ul>
Enterprise Emission Data(20 points)	Disclosure of Key Enterprise Emission Data (16 points)	<ul style="list-style-type: none"> <li>The assessment of annual pollutant emission disclosure.</li> </ul>	<ul style="list-style-type: none"> <li>Measures on Self-Monitoring and Information Disclosure of Key State-Monitored Enterprises (Trial), and “Measures for Key State-monitored Enterprise Supervisory Monitoring and Information Disclosure (Trial) (MEP Publication [2013] #81)</li> <li>Measures on Environmental Management and the Registration of Hazardous Chemicals (Trial) (MEP Order #22</li> <li>Measures on Open Environmental Information (Trial), 2007</li> </ul>
	Cleaner Production Audit Data (4 points)	<ul style="list-style-type: none"> <li>EPB disclosure of the mandated cleaner production audit enterprise list, as well as disclosure on the status of whether or not enterprises have released their key pollutant emissions. The EPB should have released the key pollutant emissions data for enterprises if the enterprise themselves failed to disclose this data.</li> </ul>	<ul style="list-style-type: none"> <li>Provisionary Measures for Clean Production Audit (2004)</li> <li>Notification Concerning the Reinforcement of Pollution Source Environmental Supervisory Information Disclosure (MEP Publication [2013] #74</li> </ul>
EIA Information (15 points)		<ul style="list-style-type: none"> <li>The disclosure status of the full text of EIA reports, as well as the level of effort made at all levels of the environmental protection bureaus, to gather public opinions and notify interested parties of their rights to administrative reconsideration and administrative litigation through media channels, community assemblies, public hearings, or other methods. These measures should be taken before there is an acceptance or rejection of the construction project’s EIA.</li> </ul>	<ul style="list-style-type: none"> <li>Notification to Issue the Construction Projects’ Environmental Impact Assessment Government Information Disclosure Guidelines (Trial), (MEP General Affairs Office Announcement [2013] #103);</li> <li>Measures on Open Environmental Information (Trial), 2007</li> <li>Provisionary Measures for Public Participation throughout the Environmental Impact Assessment Process for Construction Projects (MEP Publication [2006] #28)</li> </ul>

Four metrics are used to evaluate each assessment item:

- ***Systematicness:***

How systematic is the data we collected?

To determine how “systematic” our data is, our team primarily considers two factors: how comprehensive pollution-source information is, and how regularly this data is disclosed.

We analyze how comprehensive data disclosure is by evaluating the amount of pollution-source data that was actually published in comparison to the amount that should have been published.

We also analyze how regularly data is published by evaluating the extent to which pollution-source data disclosure followed a consistent schedule for disclosure.

- ***Timeliness:***

How timely was the collected data published?

To assess how “timely” our data is, our team assesses how promptly local pollution-source information is disclosed.

- ***Completeness:***

How complete is the data we collected?

To assess how “complete” pollution-source data is, we evaluate the content of information published regarding local pollution sources, as well as whether or not all essential figures have been included in this disclosure of information.

- ***Friendliness:***

How user-friendly is the data we collected?

To assess how “user-friendly” our data is, we investigate whether or not it is convenient for an internet user to obtain information on pollution-source pollution.

**To determine the scores, we primarily analyze online data sources, and investigate information collected from “disclosure upon public request” applications and other evaluation results.**

## 2. Assessment Methodology Summary

The grading system for each assessment criteria is based on a 100-point scale. The four metrics used to analyze our data—“Systematic,” “Timely,” “Complete,” and “User-friendly”—are given one of six grades: “Excellent,” “Good,” “Moderate,” “Fair,” “Poor,” and “Very Poor.” If the raw score of an assessment aspect is between two scoring grades, it can be either rounded up or down in accordance to the “rules for raising and lowering of grades.”<sup>46</sup>

### **Systematicness-restricted scoring system:**

The “Systematic Metric”-restricted scoring system is used throughout the entire data evaluation process. Under this rule, a given assessment item’s “systematic” aspect score is used to limit the other aspect scores (i.e. how timely, how complete, and how user-friendly data is). As a result, an assessment item’s final scores for the other three metrics (“timely,” “complete,” and “user-friendly”) are not allowed to exceed that data indicator’s “systematic” ranking. The specific “systematic” metric-restricted scoring system’s control guidelines are shown below:

---

46. For more information on these rules please refer to: [http://www.ipe.org.cn/about/notice\\_de.aspx?id=1347](http://www.ipe.org.cn/about/notice_de.aspx?id=1347).

Appendix Graph 2-2 Grading Rules for Systematic Disclosure Control

Systematic Metric Timely, Complete, User-Friendly	Excellent	Good	Moderate	Fair	Poor
Excellent	Excellent	Good	Moderate	Fair	Poor
Good	Good	Good	Moderate	Fair	Poor
Moderate	Moderate	Fair	Fair	Fair	Poor
Fair	Fair	Poor	Poor	Poor	Poor
Poor	Poor	Poor	Poor	Poor	Poor

The “Systematic Metric”-restricted scoring system has been implemented because the “systematic” metric evaluates how regularly and continuously data is published. This metric also investigates how complete the data is; this metric primarily looks at the quantity of data published. On the other hand, the metrics “Timely” and “Complete” primarily assess the quality of data disclosed, while “User-friendly” measures the quality of the publication of data itself. Since these three aspects are assessed based on published data, when scoring the last part we must emphasize the importance of the amount of information published compared to the amount which should have been published. The score for the “systematic” metric includes a section on how complete data is, so it reflects to a greater extent the quantity of information published. There are exceptions to rules for the “systematic metric”-restricted scoring system. The following data evaluation criteria are not considered under the “systematic” metric: “information disclosure upon request,” and whether data is “timely,” “complete,” and user-friendly.”

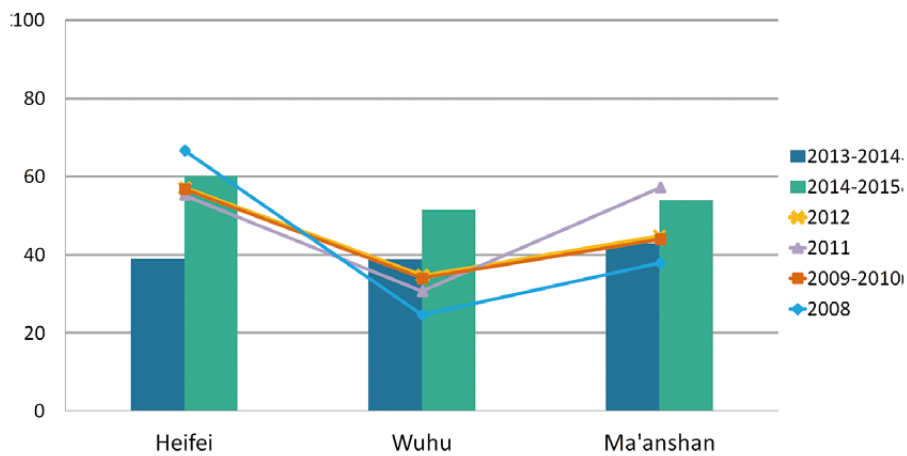
For detailed evaluation rules, please see the “Pollution Information Transparency Index Evaluation Methods (2014-2015)” (Digital Edition). Link: [http://www.ipe.org.cn/about/notice\\_de.aspx?id=1347](http://www.ipe.org.cn/about/notice_de.aspx?id=1347)



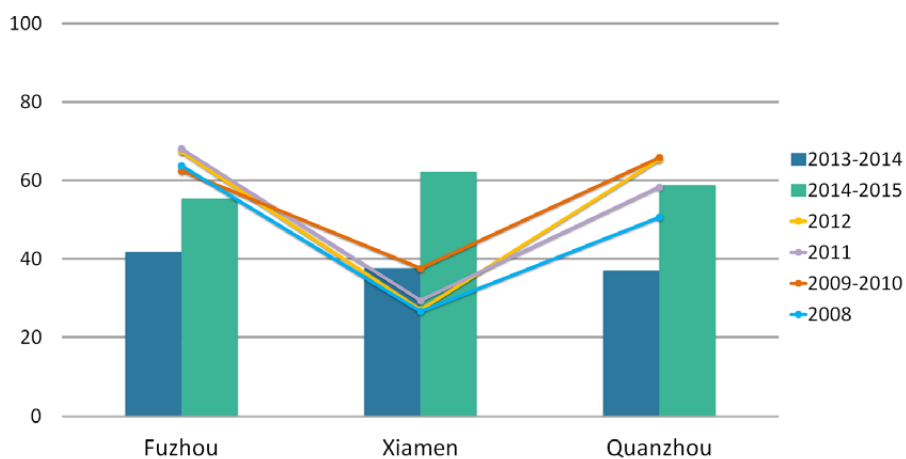
# Appendix 3:

## Charts Comparing Annual Scores of Evaluated Cities in Each Province

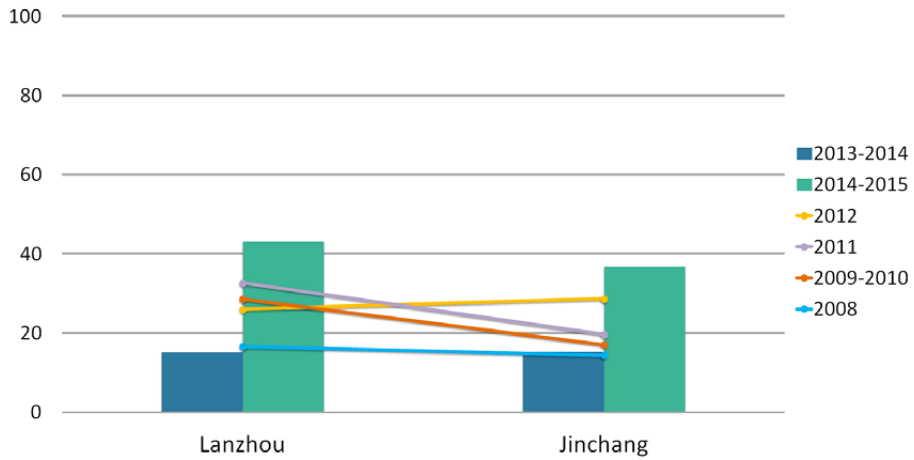
**PITI Scores for Three Cities in Anhui: Six-Year Comparison**



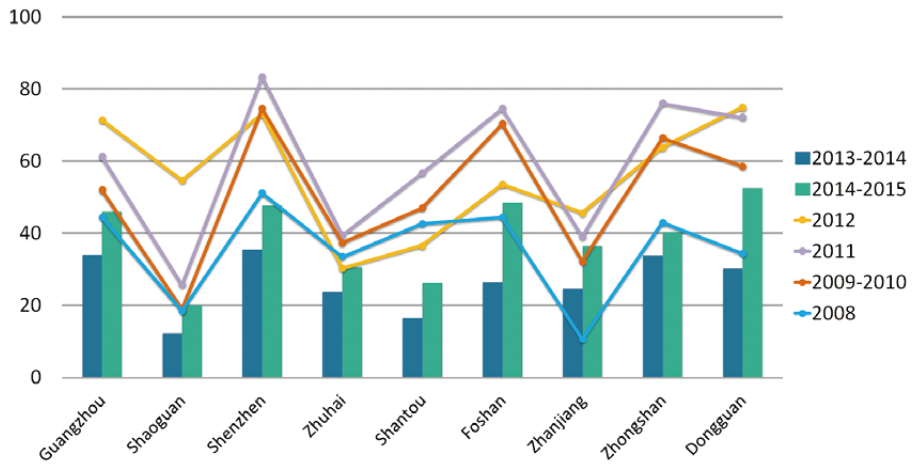
**PITI Scores for Three Cities in Fujian: Six-Year Comparison**



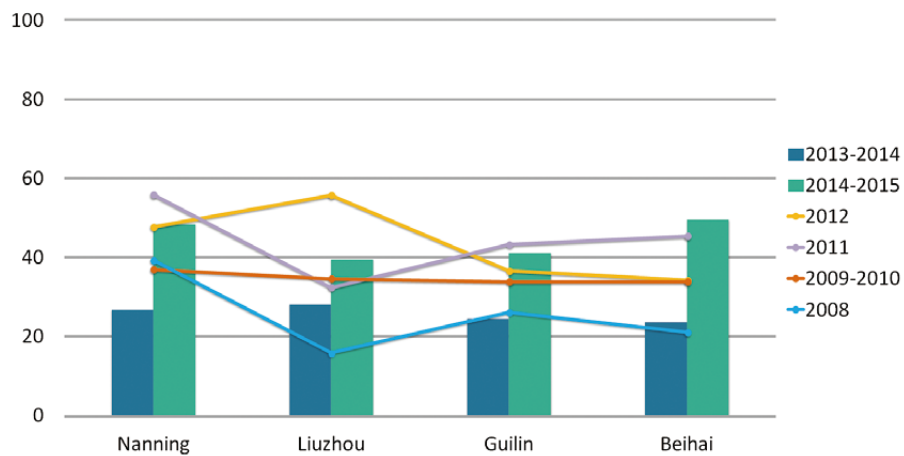
**PITI Scores for Two Cities in Gansu: Six-Year Comparison**



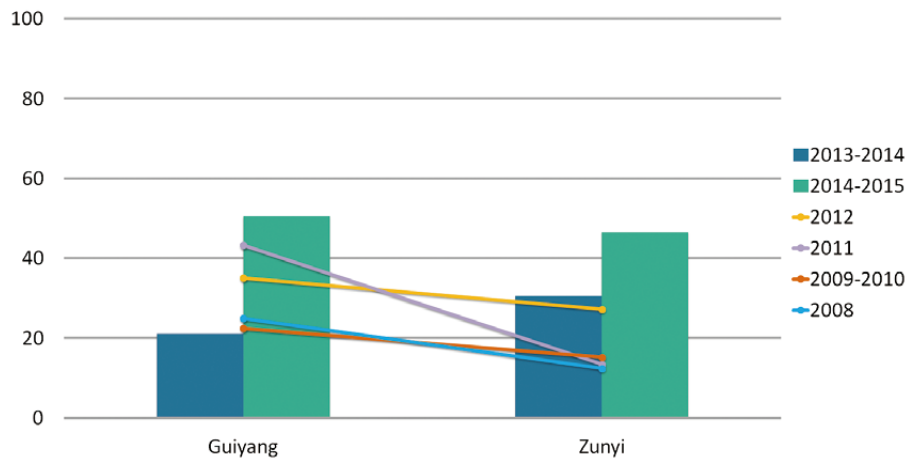
**PITI Scores for Nine Cities in Guangdong: Six-Year Comparison**



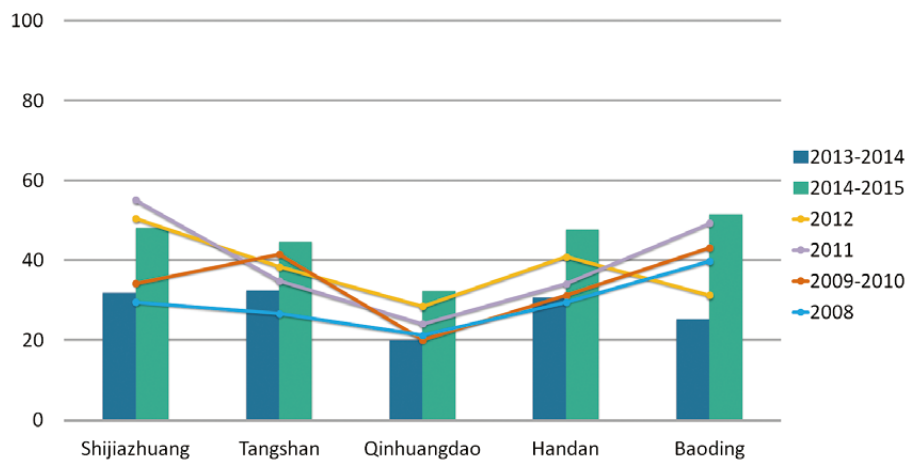
**PITI Scores for Four Cities in Guangxi: Six-Year Comparison**



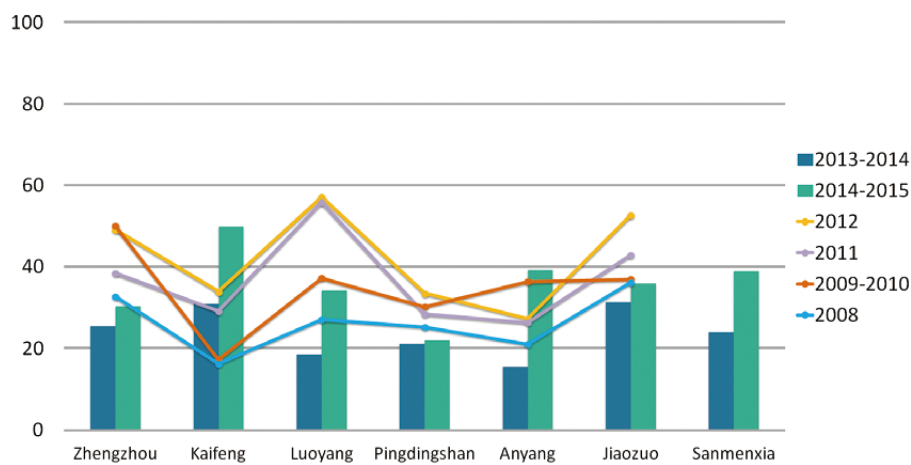
**PITI Scores for Two Cities in Guizhou: Six-Year Comparison**



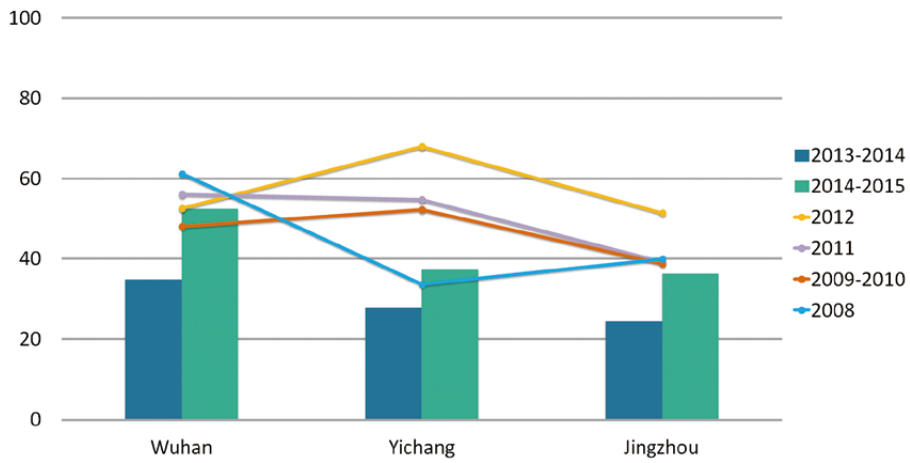
**PITI Scores for Five Cities in Hebei: Six-Year Comparison**



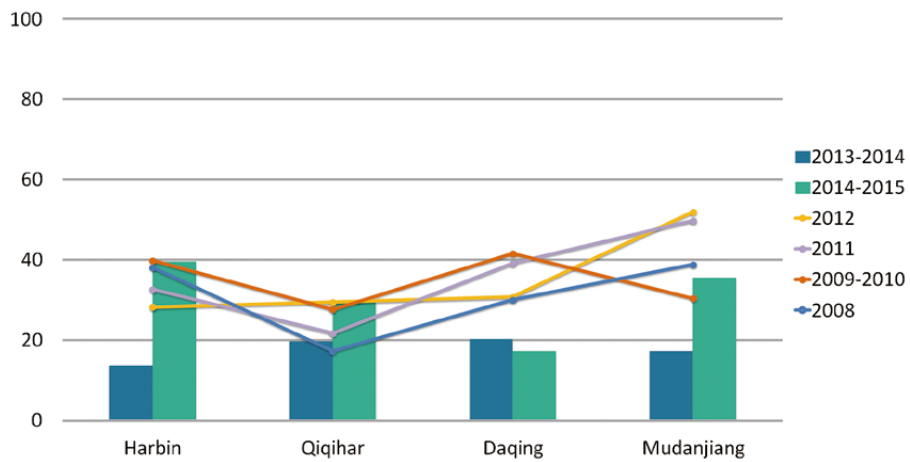
**PITI Scores for Seven Cities in Henan: Six-Year Comparison**



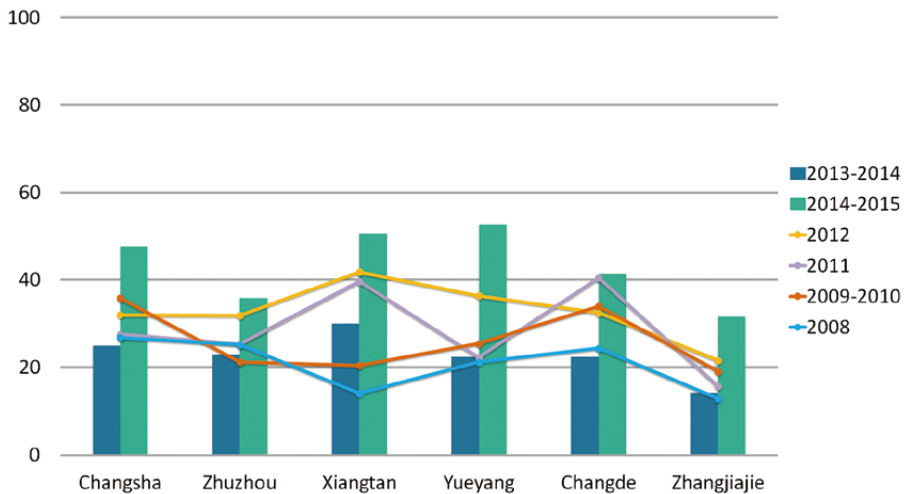
**PITI Scores for Three Cities in Hubei: Six-Year Comparison**



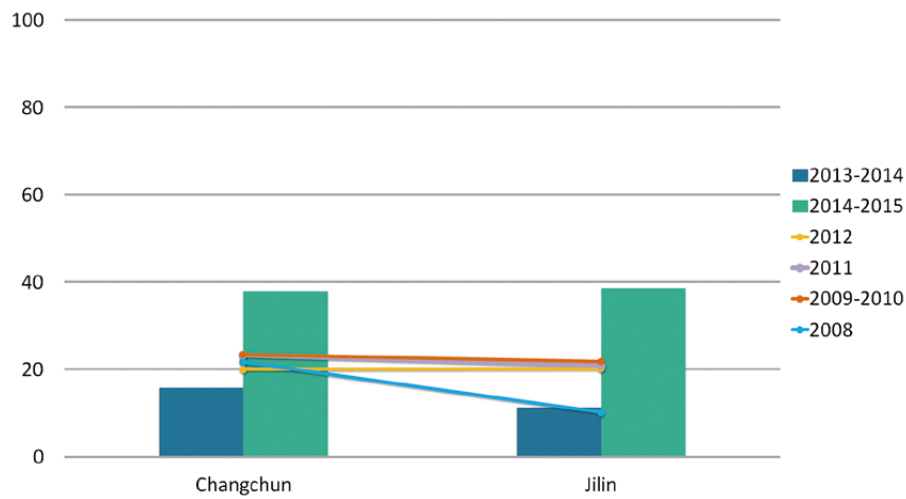
**PITI Scores for Four Cities in Heilongjiang: Six-Year Comparison**



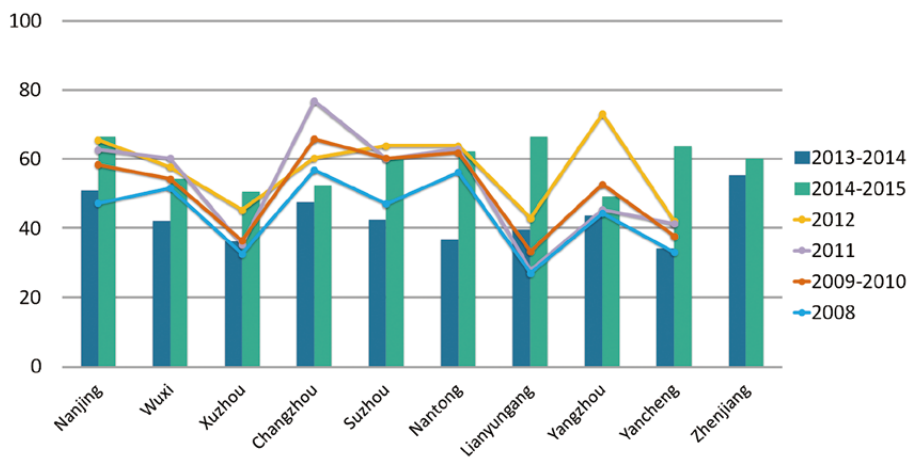
**PITI Scores for Six Cities in Hunan: Six-Year Comparison**



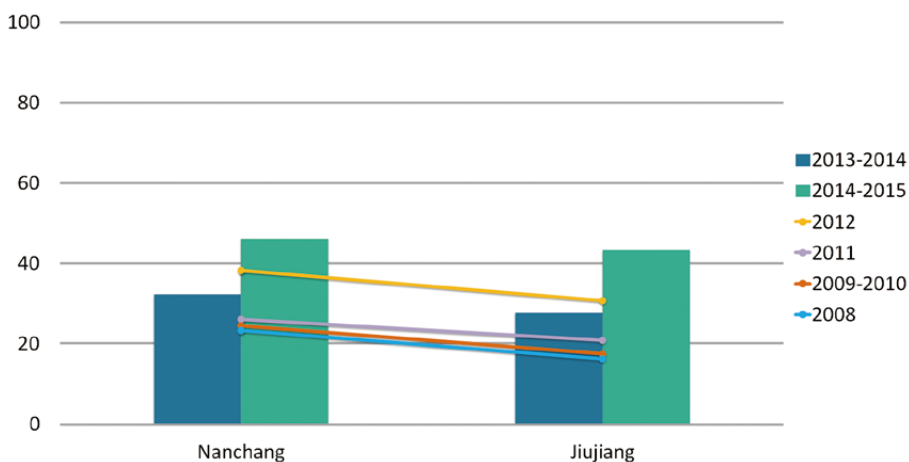
**PITI Scores for Two Cities in Jilin: Six-Year Comparison**



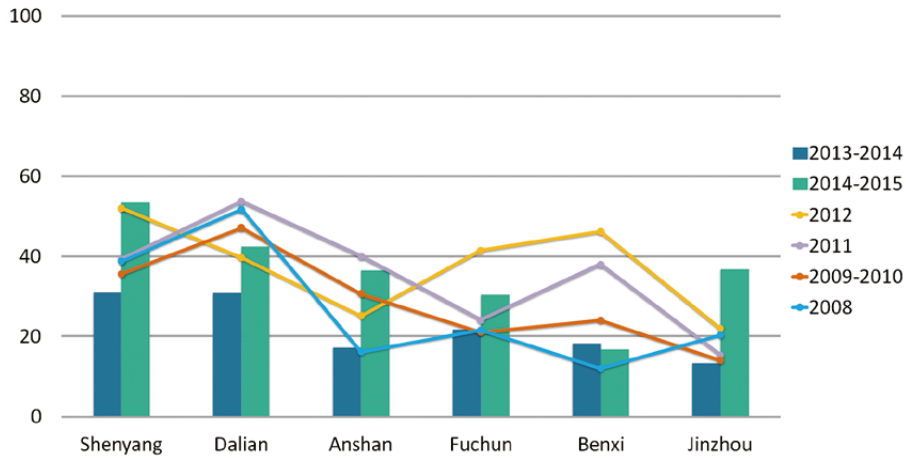
**PITI Scores for Ten Cities in Jiangsu: Six-Year Comparison**



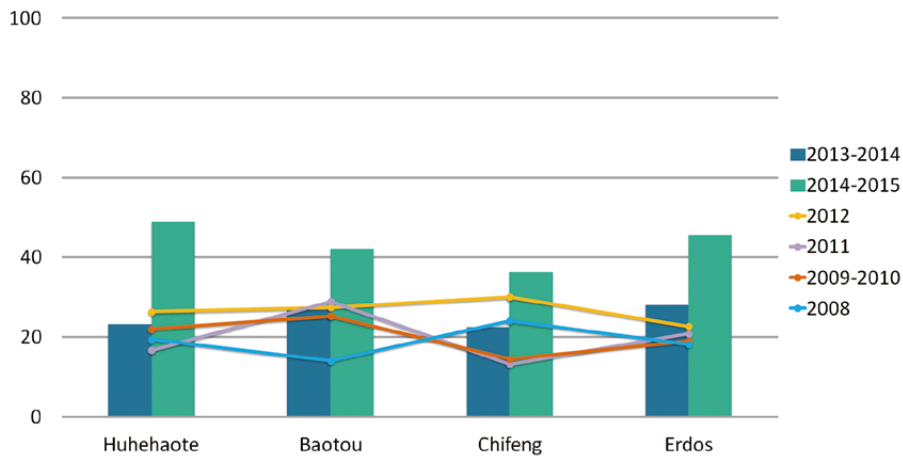
**PITI Scores for Two Cities in Jiangxi: Six-Year Comparison**



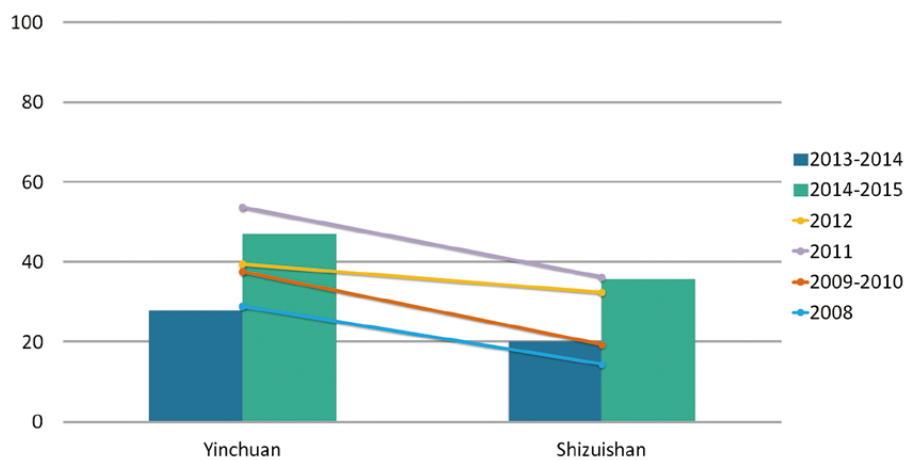
**PITI Scores for Six Cities in Liaoning: Six-Year Comparison**



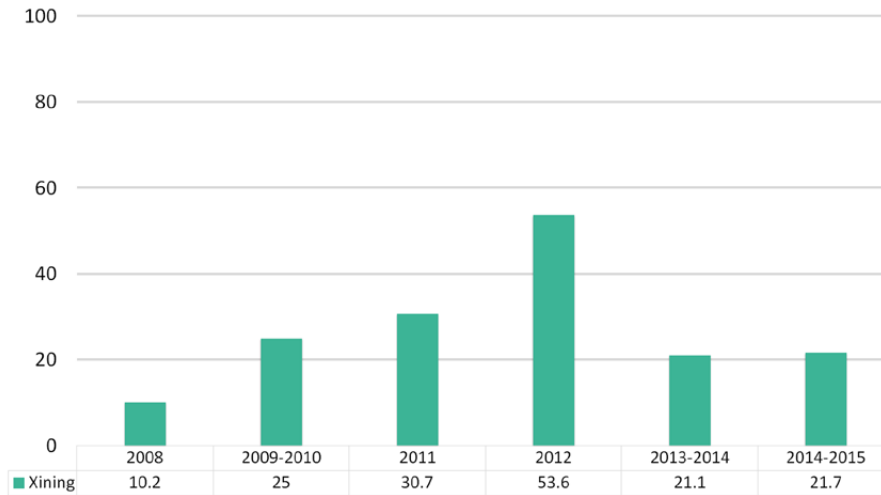
**PITI Scores for Four Cities in Inner Mongolia: Six-Year Comparison**



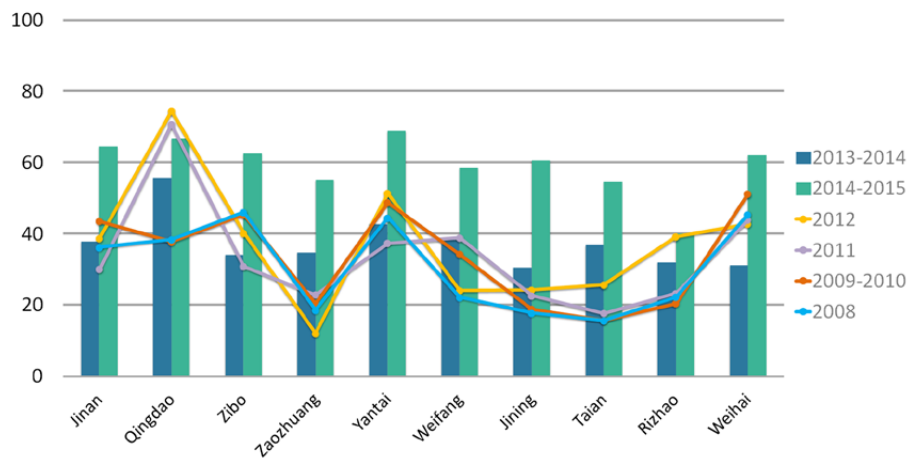
**PITI Scores for Two Cities in Ningxia: Six-Year Comparison**



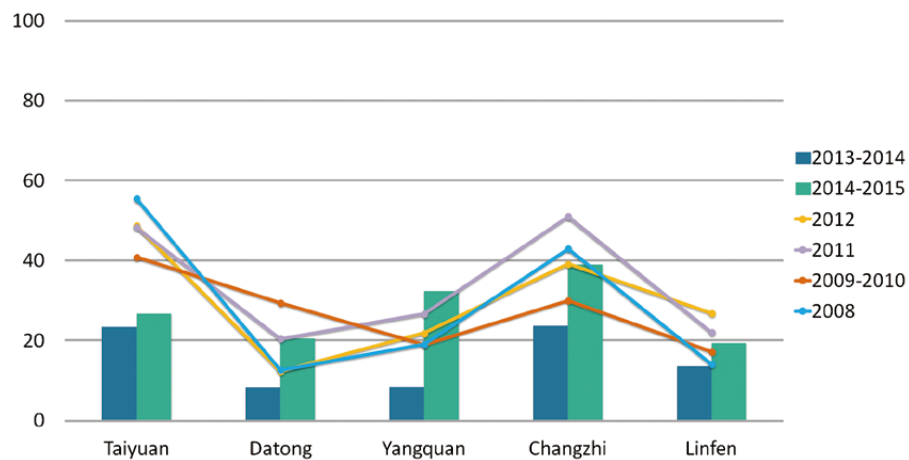
**PITI Scores for Xining in Qinghai: Six -Year Comparison**



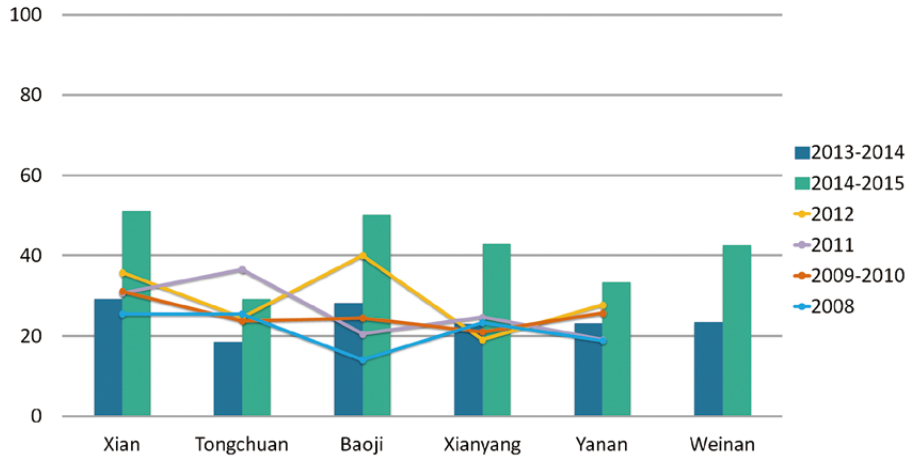
**PITI Scores for Ten Cities in Shandong: Six-Year Comparison**



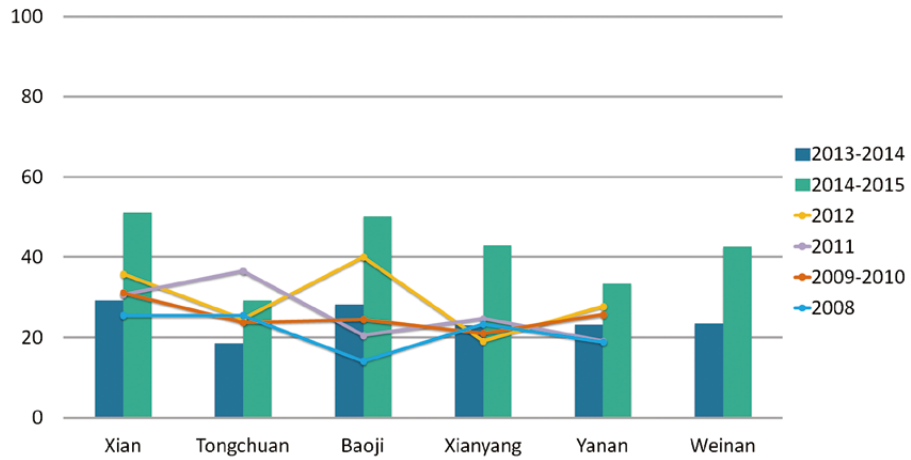
**PITI Scores for Five Cities in Shanxi: Six-Year Comparison**



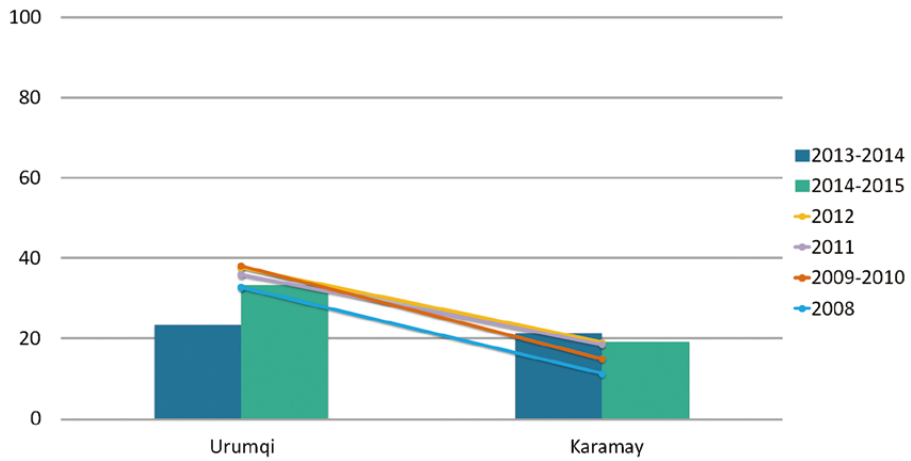
**PITI Scores for Six Cities in Shaanxi: Six-Year Comparison**



**PITI Scores for Eight Cities in Sichuan: Six-Year Comparison**

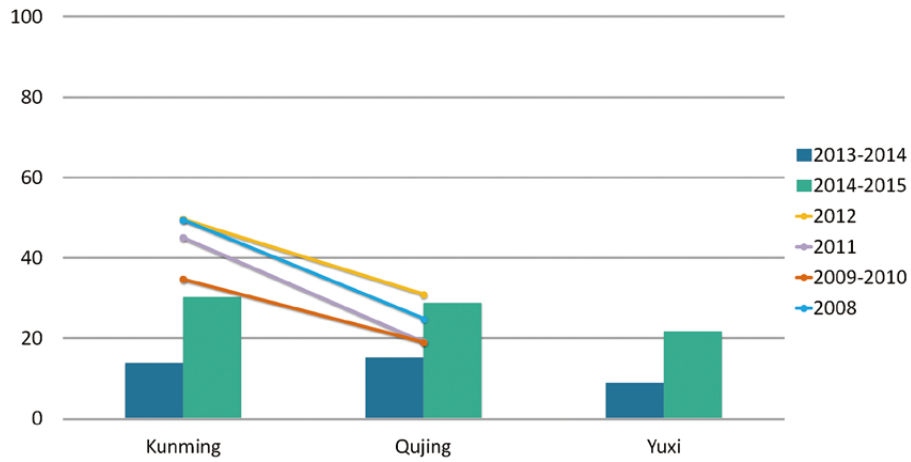


**PITI Scores for Two Cities in Xinjiang: Six-Year Comparison**

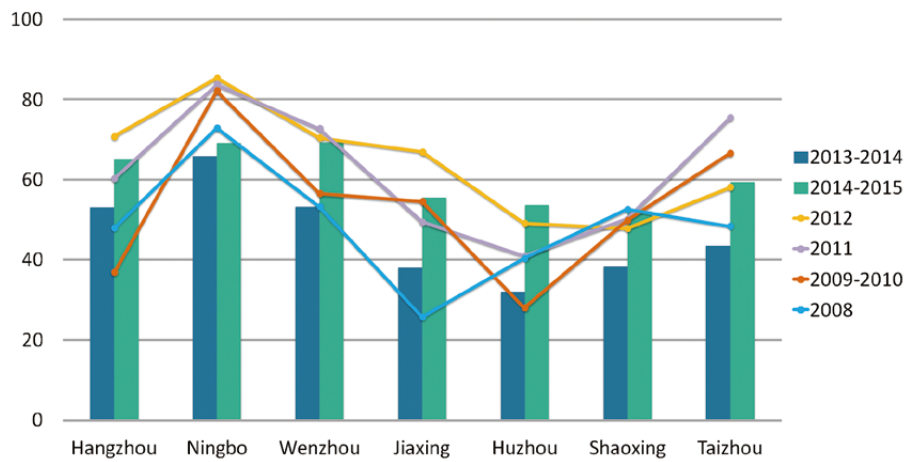




**PITI Scores for Three Cities in Yunnan: Six-Year Comparison**



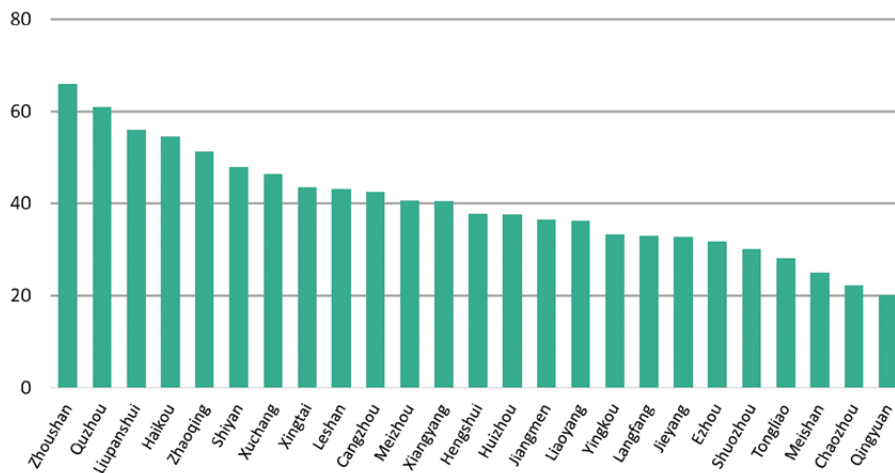
**PITI Scores for Seven Cities in Zhejiang: Six-Year Comparison**



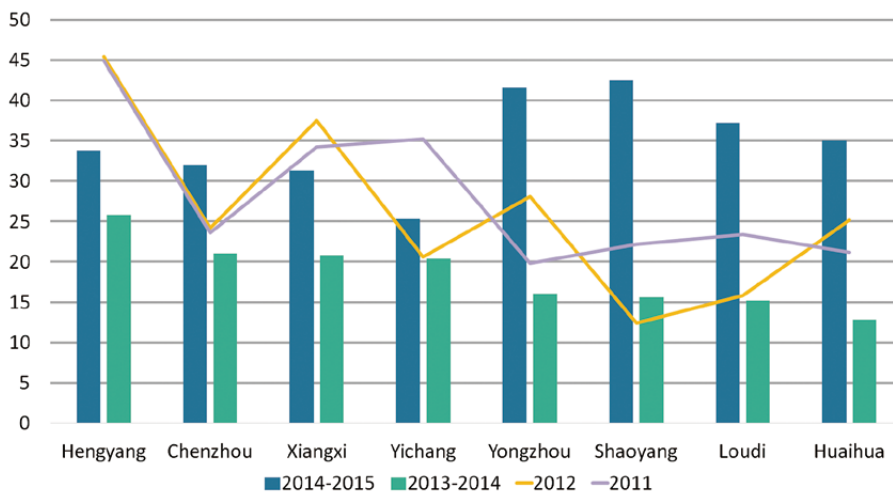
# Appendix 4:

## PITI Partner Score Graphs

Rankings for 25 Cities Assessed by Nanjing University



Annual Assessment of 8 Cities in Hunan by Green Hunan





Photo/Lv Xinghua

