



Blue Books

Experts' views for expert investors

China Environment

February 2008

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China greening

The emerging role of the public

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This report is a joint project between the Institute of Public and Environmental Affairs (IPE), WWF Hong Kong and CLSA



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Ma Jun

Ma Jun is a Chinese environmentalist and environmental consultant who began his research and writing in the mid-1990s, working for the *South China Morning Post*. In 1999 Ma authored *China's water crisis*, one of the earliest critical evaluations of the threats to China's water basins. Ma currently directs the Institute of Public and Environmental Affairs (IPE), which developed the China water- and air-pollution maps, among the first public databases of water- and air-pollution information in China. Ma was named "Green China Man of the Year" in 2006.

Ina Pozon

Ina Pozon worked as a journalist in the Philippines before joining WWF in 2001. Based in Manila and Hong Kong, her work as a campaigner has focused on supporting public participation as a tool for strengthening the introduction and enforcement of environmental policy. Pozon has authored a series of reports focusing on environmental trends in the Asian power and coal sectors for WWF.

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Hongxing Xie has worked widely on corporate social responsibility and project social impact assessment for a range of government, private sector and NGO organisations in China. His theoretical work on the role of public participation has been published in the Chinese academic journal *Environmental Protection*. Xie is currently a project director with Triple Harmony Associates.

Foreword

**Public participation
in environmental issues
grew in the 60s**

A turning point in environmental protection occurred in the 1960s when citizens of the United States, Japan and Europe expressed discontent over mounting pollution in their skies, roads and rivers. The ensuing public movement forever changed environmental management in the West.

**China has been
significantly different**

China's experience has been quite different. While many have argued that by adopting the "mass line" method of leadership - a guiding principle that required the Communist Party of China to solicit the opinions of grassroots communities - public participation was incorporated into the environmental-management structure. However, this was primarily a top-down management tool, and it differs significantly from public-participation structures that are based on the environmental rights of citizens.

**Recent growth in NGOs
focused on environment**

Recently, a more genuinely participatory approach has taken root in China with the establishment of the Friends of Nature NGO. Despite the absence of a legal or political foundation, or even an awareness of civil society, Friends of Nature, along with a number of Chinese environmental groups, began conducting environmental education. However, with the exception of a handful of environmental-rights defence cases, the public remained unable to hold offending entities accountable for their environmental damage.

**EIA laws
came in only recently**

This situation changed in 2003 when the Environmental Impact Assessment (EIA) Law came into effect, establishing the legal basis for public participation. Since 2003, the State Council further strengthened the development of civil society by issuing the Guidelines for Full Implementation of the Rule of Law (2004), which created a policy basis for information disclosure. These guidelines encouraged environmental groups to become involved in the decision-making process for large projects.

**Wealthier middle class -
"green collar" getting
involved in the debate**

In addition, China's growing middle class is becoming more involved in the debate. China Reality Research reported back in late 2006 of the rise of a segment we labelled "green collar", and how increasing wealth is allowing people to focus more on healthier lifestyles and products and take a more active role in environmental issues and debate.

**Emerging environmental
protection in China**

Strengthening environmental governance with new laws, initiatives and actions, Beijing also supports the public's evolving role in environmental protection. This report, examines how the increasing scope of civic action will affect Chinese markets, and identifies ideas that will help investors adapt to an increasingly transparent and participatory environmental-management structure in China.



Simon Powell
Head of Power Research

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More research on our environment



The CLSA Clean & Green Update features our efforts towards ensuring a healthier environment. We also highlight our coverage of companies that focus on the environment as well.

CLSA has been taking a series of steps to promote awareness of climate change among the public, investors and regulators, as well as initiating creative and concrete measures to reduce our own carbon footprint.

There is much more to do, but we believe that every little bit of energy-reducing effort helps.




14-17 January, Four Seasons Hotel
Bringing Asia to the US

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Remaining drops
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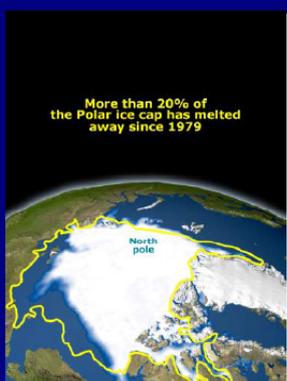
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Experts' views for expert investors

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Carbon management
Strategic implications of climate change

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China greening

China's rapid growth to become the world's fourth-largest economy has placed an undeniable strain on the environment. With its focus on building a "harmonious society", Beijing has introduced legislation to tackle environmental problems. An important feature of the government's new approach is public involvement to improve detection and compliance. Companies should take note - not only to avoid bad publicity, but to grasp the opportunity to promote a positive brand image in this massive market.

China home to some of planet's most polluted air, water, soil, coastal seas

The "world's factory" for consumer goods is home to some of the planet's most polluted air, water, soil and coastal seas. Polluted water and air are by far the most pressing concerns. China faces a severe water shortage and environmental damage is aggravating an already dire situation. Some 320 million rural residents do not have access to safe drinking water¹ and 20% of major cities' drinking-water sources do not meet Chinese standards². Meanwhile, a third of urban residents are exposed to polluted air. In 2006, 43.4% of China's cities did not meet category 2 of its air-quality standards³.

Number of incidents has increased by an average of 29% per year

Environmental problems stemming from development are also straining relationships between local communities and polluting entities. This has, in some instances, led to violent confrontation. According to government statistics, the number of complaints made to environmental authorities has increased 30% annually since 2002, reaching over 600,000 in 2004⁴. The number of collective incidents triggered by environmental damage has increased by an average of 29% per year⁵.

SEPA increasingly relying on public vigilance

China's greatest "asset", at present, to counter pollution's assaults on the environment is an increasingly vigilant public, which now enjoys more support from the government with the implementation of several recent laws. Remarks made by the State Environmental Protection Agency's (SEPA) oft-quoted Deputy Minister, Pan Yue, reflect the government's newfound encouragement of public participation: 'In the face of the complicated and arduous environmental-protection work, it is impossible to rely on environmental authorities alone. The only way to break the deadlock is to enlist the power of the public⁶.'

Cost of pollution – exceeds US\$100bn a year

Annual cost of pollution in China

	(US\$bn)
Water pollution	35.8
Air pollution	27.5
Weather disasters	26.5
Acid rain	13.3
Desertification	6.0
Crop damage from soil pollution	2.5

Source: CLSA Asia-Pacific Markets

¹ Xinhua News Agency Telegraph, 22 December 2004

² Guangming Daily, 31 July 2006

³ SEPA, China Environmental Status Report, 2006

⁴ Xie Zhenhua, Environmental Protection in the New Era, 25 May 2005

⁵ Pan Yue, People's Daily Website, Harmonious Society and Environmental Friendly Society, 8 July 2006

⁶ Ibid

The early days of public participation

Public participation in environmental decision-making and management was first made meaningful in China in 2003, when the Environmental Impact Assessment (EIA) Law came into effect. Since 2003, the State Council has further bolstered the role of the public by issuing the Guidelines for Full Implementation of the Rule of Law (2004), which created a policy basis for information disclosure. In February 2006 SEPA gave the public even more influence through the *Provisional Measures on Public Participation in Environmental Impact Assessment*, which makes the disclosure of basic information regarding projects a fundamental requirement.

Public strengthens Beijing's environmental-protection efforts

The government's strategy of engaging the public on environmental concerns has paved the way for NGOs, such as the Institute of Public and Environmental Affairs (IPE), to expose environmental violations of business to public scrutiny and intervention. IPE's web-based China water-pollution map - sourced from publicly available data - has demanded accountability from polluting companies, to the extent that some have opted to reform their practices. Multinationals found violating environmental standards include Pepsi, Bridgestone, Veolia, Nissin, Degussa and Samsung; and this is only the tip of the iceberg.

Emergence of purchasing power as a tool

Public disclosure of polluting enterprises is a key motivator for companies to act responsibly, in part because Chinese consumers are learning how to wield their purchasing power. China's local NGOs are now tapping consumer purchasing power to pressure polluters to change their ways. One example of this is the "Green Choice Initiative" (GCI), which was launched on World Water Day 2007, by 21 environmental groups in China. GCI encourages individuals to consider an enterprise's environmental performance when making everyday consumer decisions.

Polluters starting to clean up following public pressure

Following the launch of the GCI, some 50 companies found to be in violation of water-quality standards approached environmental groups to resolve the identified environmental concerns.

Reduced speed to market and earnings for state operators and international companies

Shifting attitudes towards environmental compliance have obvious ramifications for companies and investors. The aforementioned changes to environmental management, alongside vigorous public participation in the decision-making process, will undoubtedly extend the timeline for construction of projects and reduce speed to market, and may affect earnings for state operators and international companies in China.

Companies must be prepared to manage risks brought by greater involvement from the public in the future. Leading companies that stay ahead of the curve may differentiate their brand names from others and gain a competitive edge in the long run.

China's environmental challenges

China is undergoing massive economic expansion, becoming the fourth-largest economy in the world within a quarter of a century. This growth has benefited hundreds of millions of Chinese and brought enormous business opportunities to local and foreign investors alike.

Fossil fuels driving rapid growth

Undeniable challenges, risks and costs come with fast-paced growth. In order to fuel China's economic rise, the country has been consuming substantial amounts of the world's resources.

Figure 1

Major resource consumption (percentage of China's total)

(%)	2005	2010F
Coal	69.1	66.1
Oil	21.0	20.5
Hydropower	6.2	6.8
Natural gas	2.8	5.3
Nuclear power	0.8	0.9
Other renewable energy	0.1	0.4

Source: NDRC

Figure 2

Major resource consumption in 2004 (percentage of world's total)

(%)	
Coal	31
Oil	7
Iron ore	30
Steel	27
Aluminium	25
Cement	40

Source: People's Bank of China, 'Report on the Implementation of China's Monetary Policy, Fourth Quarter 2005', February 2006

Increased pollution

China's resource-intensive growth has brought a corresponding increase in pollution discharge. In its role as the "world's factory" of consumer goods, China carries the heavy burden of some of the world's most contaminated air, water, soil and coastal seas.

Figure 3

China's acid rain problem

Designation of acid rain and SO₂ control zones and control policies in China



Source: .J. Environ. Sci. Health

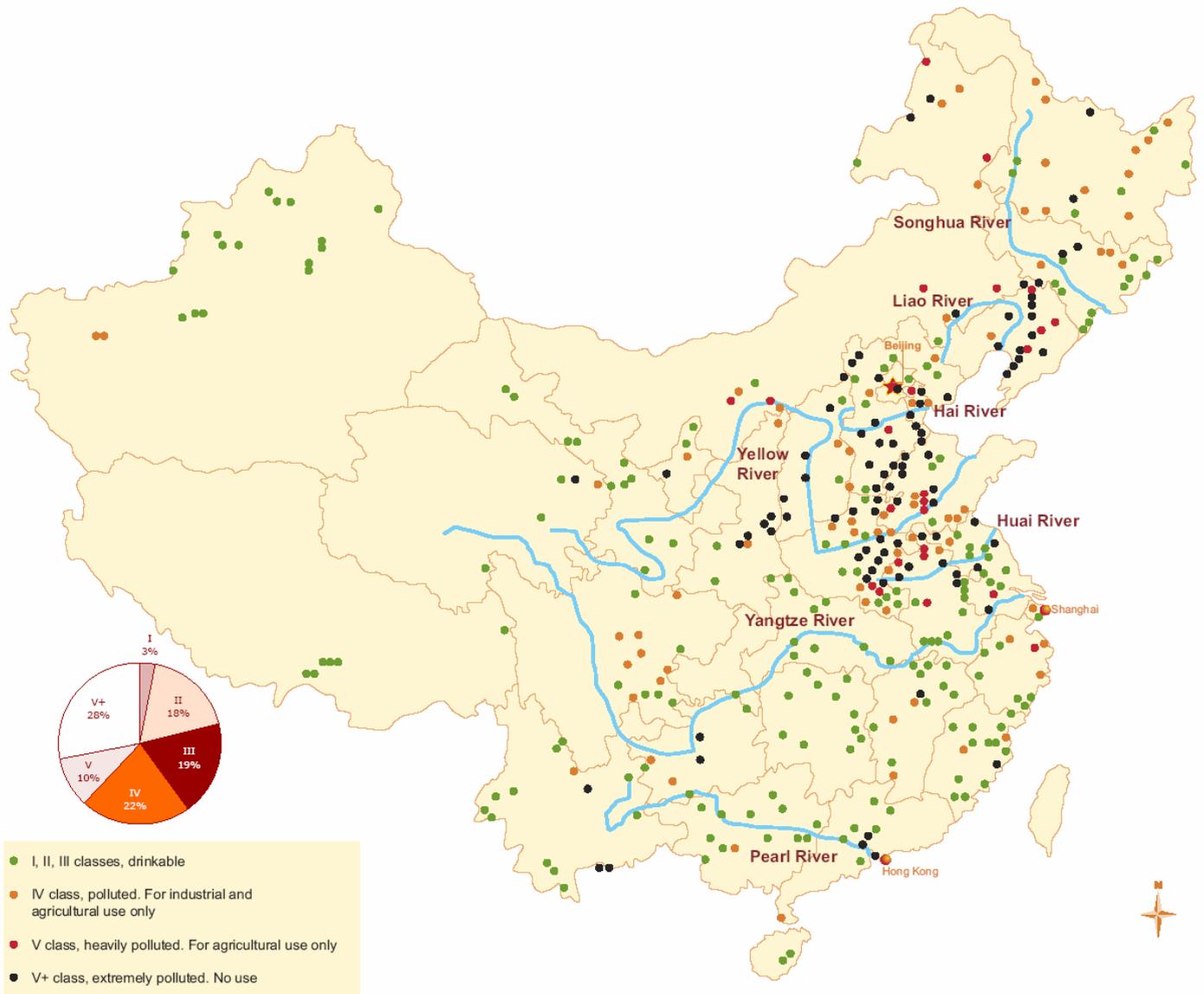
Acid rain becoming a major issue

Pollution discharge

In terms of air pollution, China was the biggest sulphur dioxide (SO₂) emitter in the world in 2005⁷; some 32.6% of total land area is affected by acid rain⁸; and 43.4% of cities did not meet category 2 of Chinese air-quality standards in 2006⁹.

Figure 4

China's polluted waters



Results from more than 500 water quality monitoring stations located along China's seven major river systems. Most water resources in the semi-arid north China plain have been quite contaminated.

Source: China National Monitoring Center, CRR

⁷ Xinhua News Agency, China's SO₂ emission topped the world, 3 August 2006

⁸ SEPA, China Environmental Status Report, 2006

⁹ Ibid

Turning to water pollution, 53.7bn tonnes of wastewater and sewage were discharged in 2006¹⁰. A major proportion of China's rivers are polluted; with 28% of monitored sections classified as non-usable¹¹; 75% of lakes suffering from eutrophication¹²; and 90% of shallow aquifers in major cities polluted¹³. Also, 31bn tonnes of discharge flow into coastal seas¹⁴ every year.

Each year, municipal solid waste totals 120m tonnes¹⁵, while the annual discharge of industrial waste is 800m tonnes¹⁶, which includes nearly 10m tonnes of hazardous waste¹⁷.

A growing public-health problem

Environmental degradation is placing increasing stress on public health. The Director of the Supervisory Department of the Ministry of Health, as quoted by *China News Weekly*, stated that every year, urban air pollution kills 178,000 Chinese, while 350,000 outpatients with breathing problems seek medical help and 6.8 million require emergency treatment for respiratory problems¹⁸.

Impacts of pollution

Figure 5

Local communities scooping algae from Lake Tai in the summer of 2007



Source: Photo by Ma Jun

¹⁰ *Ibid*

¹¹ *Ibid*

¹² Xinhua News Agency, Nanchang, 23 November 2005

¹³ China News Service, Beijing, 27 December 2005

¹⁴ State Oceanography Bureau, China Marine Environmental Quality Report, 2005

¹⁵ SEPA, Notice on the Environmental Management of E-Waste, 30 May 2002

¹⁶ *Ibid*

¹⁷ *Ibid*

¹⁸ *China News Weekly*, 3 December 2007

Complaints rising

Public health hazards related to pollution

A third of urban residents are exposed to polluted air¹⁹; 320m rural residents do not have access to safe drinking water²⁰; 20% of major cities' drinking-water sources do not meet Chinese standards²¹; and 12m tonnes of grain is contaminated by heavy metals annually²².

With the growth of the Chinese economy and the negative environmental and social impacts that accompanied this rapid development, conflicts between communities and developers have also risen. According to government statistics, the number of complaints made to environmental authorities has increased 30% annually since 2002, exceeding 600,000 in 2004.²³ The number of collective incidents triggered by environmental damage has increased by an average of 29% per year.²⁴

Cost of water pollution is too big to ignore

Figure 6

Cost of pollution in China

	(US\$bn)
Water pollution	35.8
Air pollution	27.5
Weather disasters	26.5
Acid rain	13.3
Desertification	6.0
Crop damage from soil pollution	2.5

Source: CLSA Asia-Pacific Markets

Recognising that environmental damage may curtail China's future, the central government has introduced a "scientific outlook" approach towards development, with the aim of achieving more balanced and sustainable growth. It is pursuing the principle of a "harmonious society," which includes, as a central tenet, the harmony between people and nature.

The 11th Five-Year Plan sets clear targets

The Chinese government set in its 11th Five-Year Plan (2006-10) clear goals related to environmental protection. These include reducing energy consumption per unit of GDP by 20% and cutting major pollutants by 10%, relative to 2005 levels, by the end of the 11th Five-Year Plan. It also aims to increase forest coverage to 20% of the country versus the 2005 level of 18.2%.

As with most policy goals, however, the challenge is translating words into action. There is a growing understanding in China that environmental problems cannot be blamed solely on the country's lack of technology or financial solutions, but are also due to China's weak administrative regulation. Local governments have been known to prioritise economic development over environmental protection, which in turn means environmental standards are sacrificed in favour of local GDP growth. Within the existing environmental-governance structure, there is little incentive for companies to improve their environmental performance.

¹⁹ People's Daily Website, Pan Yue, Harmonious Society and Environmental Friendly Society, 8 July 2006

²⁰ Xinhua News Agency Telegraph, 22 December 2004

²¹ Guangming Daily, 31 July 2006

²² Xinhua News Agency Telegraph, 18 July 2006

²³ Xie Zhenhua, Environmental Protection in the New Era, 25 May 2005

²⁴ People's Daily Website Pan Yue, Harmonious Society and Environmental Friendly Society, 8 July 2006

Large gap in enforcement needs addressing

To address the gap in enforcement, Beijing has been slowly transforming its management system by pushing for greater transparency when it comes to company violations and by allowing affected communities and the concerned public to participate in environmental protection.

Some 73% of the targeted new capacity of 50mt under construction

Figure 7

11th Five-Year Plan target on water (2006-10)

Aim	Details	Impact
Water conservation	<p>Cut water consumption per unit of GDP growth by >20% from 2005 by 2010.</p> <p>Bring down water consumption for every Rmb10,000 in industrial added value to below 115 tonnes by 2010, or down >30% from 2005.</p>	Water conservation measures to speed up through various means, such as tariff growth and levying sewage treatment fees.
Increase water pricing reform and fee collection	<p>Step up in water pricing reform and expand the fee sources by further extending water resources and sewage-treatment fees</p> <p>Wastewater fee collection is to be levied in all cities and towns by 2010, compared to the end of 2005 where >150 cities had wastewater treatment fees. Gradually increase tariffs to recover the costs.</p>	Tariff increases set to benefit the water-supply and wastewater-treatment industries.
Increase water supply & sewage treatment	<p>Improve the sewage treatment rate to 70% of all wastewater to be treated in the cities (52% in 2005) ie, treated water volume of 2.8m tonnes/year by 2010.</p> <p>Improve sewage treatment capacity by new additions of 50m tonnes/day to make a total sewage treatment capacity of 100m tonnes/day</p> <p>Reduce the national city water supply leakage rate to less than 15%</p> <p>Promote recycled water use.</p> <p>City recycled water consumption to sewage treatment rate to reach 20% in northern cities, and 5-10% in southern cities.</p>	Positive for sewage-treatment plays as wastewater-treatment businesses will become more profitable and accelerate expansion.
Improve irrigation systems	Raise the irrigation efficiency ratio from 0.45 to 0.5 by 2010.	Positive for water saving irrigation plays.

Source: CLSA Asia-Pacific Markets

Weak regulation exacerbates problems

Due to the growing awareness that environmental problems are in fact significantly exacerbated by China's weak administrative regulation, the central government has begun to refine its management systems. It is pushing for greater transparency on corporate violations and improving affected communities', as well as the concerned public's access to environmental information. While transparency remains insufficient, it is important to point out that the tides have turned in favour of more sustainable development and, in relative terms, substantial progress has been achieved - the pending Environmental Information Disclosure Measures (Trial Implementation to be passed in May 2008) should further enhance government and corporate disclosure.

A long tale of abuse

Figure 8

Tale of a Chinese River - Never-ending abuse of Huai River

Feb 89	The first serious pollution incident occurred on the Huai River. More than 110m m ³ of polluted water was discharged from the Bengbu water gate, forming a 60km-long polluted water belt. Water supply was stopped, and the daily lives of several million people were threatened. The total economic toll was more than 100m yuan.
May 94	China State Councillor Song Jian declared the initiation of the Huai River Pollution Control Plan, which was the first major river pollution control plan in China.
Jul 94	The largest pollution incident at the time occurred on 23 July, which lasted for 55 days and polluted more than 330 hectares of farmland. The length of polluted water reached 90km. The total economic toll was estimated at 170m yuan.
Aug 95	The State Council declared the first river basin pollution control regulation in China: the Provisional Regulation on Huai River Basin Water Pollution Control.
Jun 96	The State Council ratified the Huai Basin Water Pollution Control and Prevention Plan and the Ninth Five-Year Plan. Following the decision of the Environmental Committee of the State Council, 1,094 paper mills with a production capacity of less than 5,000t were shut down by 30 June.
May 97	The Huai Basin Water Resource Protection Committee urged administrative bodies at all levels of government in the four provinces and industrial enterprises in the basin to enhance financial investment in pollution control.
Jun 97	Song Jian emphasised at the 11th Meeting of the Environmental Committee of the State Council that the time limit and overall target for pollution control for the Huai River was unchangeable.
Nov 97	The State Environmental Protection Administration (SEPA) sent out surveillance working groups to the Huai basin's four provinces to conduct field surveys and oversee wastewater pollution control conducted by industries.
Dec 97	The Environmental Committee of the State Council declared that after three years of effort, the Huai basin pollution control had achieved its first-stage targets.
31 Dec 97	The "Huai River Pollution Control Zero Hour Action" is accomplished: All 1,139 industries in the Huai basin's four provinces met pollution control standards.
Jun 00	Vice-Premier Wen Jiabao took a survey trip of the Huai River basin to check progress on pollution control work in the region.
2001	A 20km-long belt of polluted water formed upstream in the Huai River, which forced the Ministry of Hydrology to divert 800m m ³ of fresh water from Luoma Lake to Hongze Lake to dilute the pollution.
2002	The upper stream of the Huai discharged 130m m ³ , polluting more than 3,530ha of water in Xuyi Prefecture (Jiangsu Province) alone.
Jan 03	The State Council ratified the 10 th Five-Year Plan for Huai River Basin Water Pollution Control.
May June 2004	SEPA conducted an undercover investigation on the Huai River pollution control work.
Jul 04	The largest pollution incident in Huai River history occurred with flooding in the upper stream. The polluted belt reached a record 150km. The loss of fish and shrimp in Xuyi Prefecture alone cost 300bn yuan.

Source: The People's Daily

SEPA increasingly relying on public vigilance

China's greatest "asset" in countering pollution's assaults on the environment is an increasingly vigilant public, which now has more support from the government with the implementation of several new laws. Remarks made by the State Environmental Protection Agency's (SEPA) oft-quoted Deputy Minister, Pan Yue, reflect the government's newfound encouragement of public participation: 'In the face of the complicated and arduous environmental-protection work, it is impossible to rely on environmental authorities alone. The only way to break the deadlock is to enlist the power of the public.'²⁵

The early days of public participation

Public participation in the environmental decision-making process was first made meaningful in China in 2003, when the Environmental Impact Assessment Law (the EIA Law) came into effect. Since 2003, the State Council has further bolstered the public's role by issuing the Guidelines for Full Implementation of the Rule of Law (2004), which created a policy basis

²⁵ *Ibid*

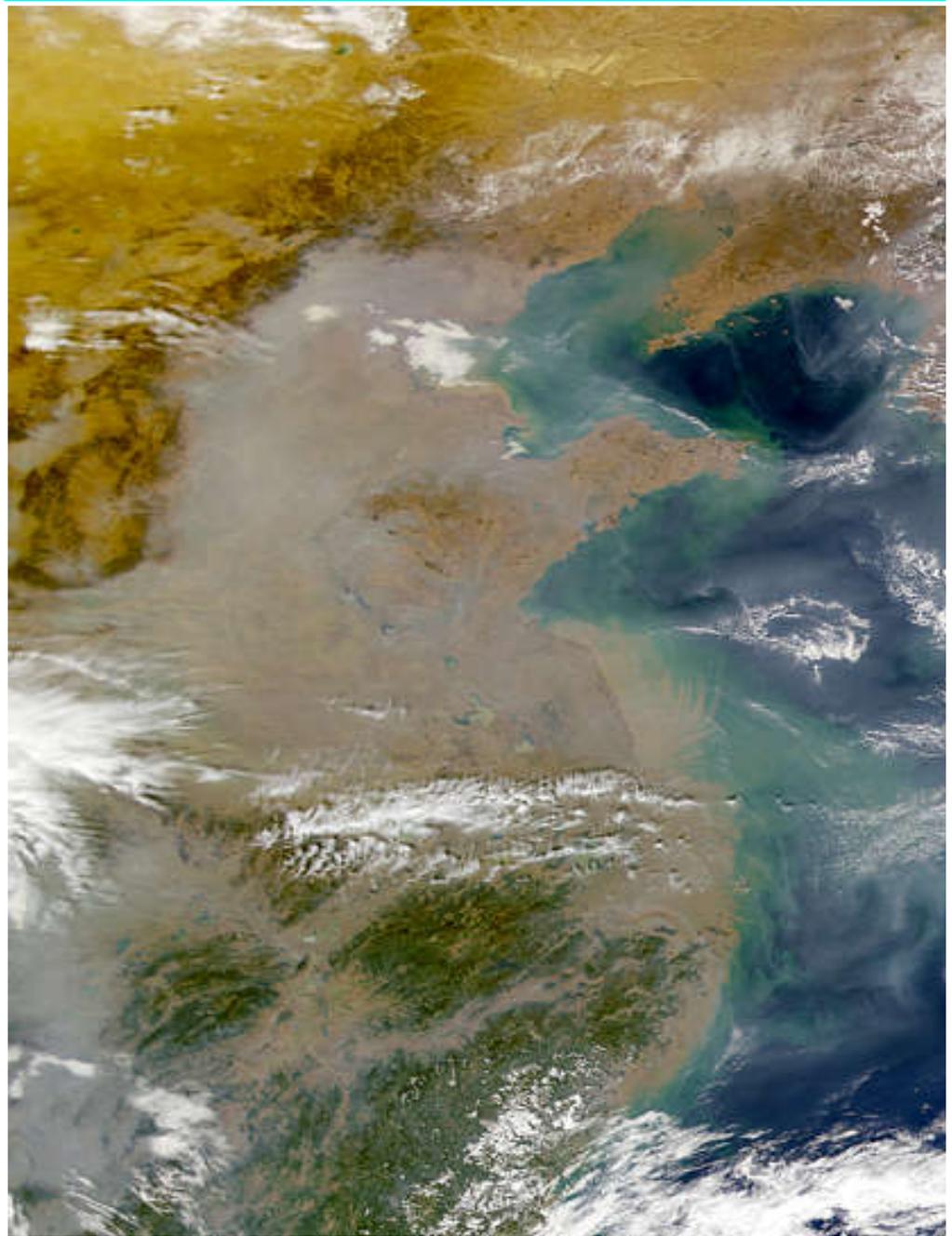
for information disclosure. These guidelines encouraged environmental groups to become involved in the decision-making processes of large projects, hence directly influencing companies.

In February 2006 SEPA gave the public even more influence through the *Provisional Measures on Public Participation in Environmental Impact Assessment*, which makes the disclosure of basic information regarding projects a fundamental requirement.

Large-scale pollution

Figure 9

China's pollution visible from space



Note: This SeaWiFS image of eastern China shows the widespread nature of the pollution problem.
 Source: Provided by the SeaWiFS Project, NASA/Goddard Space Flight Center, and ORBIMAGE

Yet despite these positive developments, serious shortcomings still exist in the arena of environmental public participation. For example, in the initial stages of project design, the public has little opportunity to access information regarding proposed projects or participate in the decision-making process. Public influence is also limited in so far as that it has *not* extended to the courts. Due to certain restrictions, industrial pollution caused by companies cannot be resolved through the Chinese legal system. But with increasing government data disclosure, a new role for the public in helping enforce environmental regulations has emerged.

**Engage the public in
pollution control**

The government's tactic of engaging the public in pollution control has paved the way for groups like the Institute for Public and Environmental Affairs (IPE) to expose environmental violations by businesses to public scrutiny and intervention. The IPE's web-based China Water Pollution Map, based on publicly available data from the government, has effectively demanded accountability from polluting companies, to the extent that some companies have reformed their practices. The "name and shame" strategy is a useful tool to reign in polluting enterprises, and particularly large companies with well-known brands, as their violations are more apt to garner media attention and widespread public disapproval. Some multinational companies caught out violating water standards include Pepsi, Bridgestone, Veolia, Nissin, Degussa and Samsung; and this is only the tip of the iceberg.

**Emergence of purchasing
power as a tool**

Public disclosure of polluting enterprises is a key motivator for companies to act responsibly, in part because Chinese consumers are learning how to wield their purchasing power. China's local NGOs are now tapping consumer purchasing power to pressure polluters to change their ways. One example of this is the "Green Choice Initiative" (GCI), which was launched on World Water Day 2007 (22 March 2007) by IPE and 20 other environmental groups in China. GCI encourages individuals to consider an enterprise's environmental performance when making everyday consumer decisions.

**Polluters starting
to clean up following
public pressure**

Following the launch of the GCI, some 50 companies identified in violation of water quality standards approached environmental groups to resolve their environmental concerns.

**Reduced speed to market
and earnings for state
operators and
international companies**

Shifting attitudes towards environmental compliance have obvious ramifications for companies and investors. The aforementioned changes to environmental management, alongside vigorous public participation in the decision-making process, will undoubtedly extend the timeline for construction of projects and reduce speed to market and earnings for state operators and international companies, if not handled properly.

Relationship in transition

Historically, the impact of the Chinese public on the private sector in terms of environmental accountability has been negligible. This is due to a combination of factors, such as limited government transparency, the small number of NGOs operating in China, limited avenues for the public to engage in the decision-making process, poor enforcement of existing environmental rules, and the Chinese legal system's ability to resolve environmental disputes.

China is changing, as is relationship between private sector and public

Although public participation is still in its early stages, it would be a misjudgement to trivialise the Chinese government's commitment to engaging the public in environmental protection. The paradigm shift towards a more "harmonious" path to development *with the public as a key partner* can be seen in many ways:

- A) The number of NGOs is steadily increasing, as is their capacity and credibility. However, compared to the government and private sector, they remain fairly small, and their in-house capacity is often stretched because of limited financial and human resources.
- B) While environmental transparency remains insufficient, substantial progress has been achieved, particularly with the pending Environmental Information Disclosure Measures (trial implementation to be passed in May 2008). This law is set to enhance government and corporate disclosure. (For more details, see Section 5.)
- C) The Provisional Measures on Public Participation in the Environmental Impact Assessment have made the public an officially recognised participant in this key environmental decision-making process. (For more details, see Section 3.)
- D) To counter the problem of weak enforcement, the government has enacted and supported greater transparency in regulatory control. This means that the excesses of business enterprises can be exposed to public scrutiny and intervention. One example is IPE's China water pollution map, which has demanded accountability from polluting companies. The organisation has successfully engaged with listed violators to address their practices. (For more details, see Section 4.)

Outspoken minister Pan Yue calls for public support

The State Environmental Protection Agency's (SEPA) outspoken Deputy Minister Pan Yue supports the notion that environmental protection cannot be successful without public intervention. 'In the face of the complicated and arduous environmental protection work, it is impossible to rely on environmental authorities alone. The only way to break the deadlock is to enlist the power of the public²⁶.'

Involving the public in environmental management

The tactic of involving the public in environmental management has been viewed by experts within and outside SEPA as critical in helping the body block 43 proposed projects and suspend dozens of large industrial projects for failing to observe environmental laws. SEPA's recent unprecedented moves stand in positive contrast to its previous claim that implementation of environmental regulations 'were still not considered binding and were often merely conducted for show²⁷.'

²⁶ *Ibid*

²⁷ *South China Morning Post*, "Watchdog urges public to back pollution battle," 18 December 2006

To summarise, while public participation in China is currently not as comprehensive as in Western models, it is steadily evolving alongside the transition of China’s environmental-management system. Environmental civil society has grown in strength and sophistication and there are signs that it will have a greater impact on environmental policy and decision-making.²⁸ Companies will need to be prepared to manage greater involvement from the public in the future, as more sophisticated participation brings with it higher risks for investors and enterprises.

The public eye

Who is the public?

If the public’s growing influence in China can no longer be ignored, the question that bears asking is - who is this public?

In China, the public refers to the following characters:

Starting to see an increase in NGOs

NGOs

Due to dramatic economic growth and significant improvements to China’s environmental laws, NGOs in China have matured in terms of their operations and scope. In the beginning, Chinese NGOs drew from the field of early environmental advocacy and worked primarily to protect endangered species within the country. But gradually NGO activities have moved beyond raising public awareness to providing policy advice, carrying out social supervision, safeguarding environmental rights and promoting sustainable development. And, following the introduction of the EIA law in 2003, and more recently the Environmental Information Disclosure measures, there has been a steady increase in the number of Chinese NGOs involved in environmental legislation cases.

It is important to note that government attitudes toward NGOs have also changed. The work carried out by NGOs is now given more than just cursory notice; in a number of ways, the Chinese government has actively supported the activities of NGOs. For example, after Beijing Global Village (BGV), a Beijing-based NGO, initiated a summer campaign to promote appropriate use of air-conditioners, the Chinese government followed suit and adopted a regulation that requires all air-conditioners in public buildings be set to no lower than 26 degrees Celsius²⁹.

A less confrontational approach

The relationship between NGOs and business has also been transformed. Although many NGOs still choose to collaborate with environmentally friendly enterprises, some have adopted methods to address the private sector’s environmental shortcomings.

Letter writing

The most common way that Chinese NGOs actively confront polluters is to file a complaint with the relevant government office. There is evidence to suggest that this method can be effective. For example, in 2002, after learning of a proposal to expand Jiulongpo power plant, the Green Volunteer Federation in Chongqing was able to stop the project by voicing complaints to SEPA and seven other governmental departments, citing the harmful effects on air quality that such an expansion would create.

²⁸ Yiyi Lu, Chatham House, Environmental Civil Society and Governance in China, August 2005
²⁹ The State Council issued the “Notice on the strict enforcement of air conditioner temperature control of public buildings,” requiring all air-conditioners in the city to be set to no lower than 26 degrees Celsius

Legal action

In cases where complaint letters go unanswered, or where the government and enterprise remain indifferent to public outcry, some environmental NGOs will resort to legal action. A case in point: In 2002, the Pingnan Green Association filed a motion against Fujian Pingnan Rongping Chemical under allegations of pollution infringement. In 2005 the Fujian High Court sentenced Rongping to pay compensation of more than 680,000 yuan to 1,721 villagers. Unfortunately, the villagers did not get access to this compensation until late 2007.

On the whole, however, the legal system remains a bottleneck in resolving environmental disputes.

Participation in the EIA process

When Chinese NGOs began participating in the EIA process in 2003 they were successful in suspending or cancelling a handful of multi-million-dollar dam projects. Environmental groups are likely to take advantage of China's now more inclusive EIA to impact corporate behaviour and participate in decision-making processes.

Figure 10

Polluted river in Shangbei



Source: Imaginechina

Figure 11

Dead fish at Miaohu lake, Hubei



Public disclosure through the web

The disclosure of polluting or eco-damaging factories was a strategy used previously by Chinese NGOs, but mostly on a case-by-case basis, and dissemination of information was accomplished primarily through the media. In 2006, IPE launched the "China Water Pollution Map," a web-based database with records of over 10,000 non-compliant enterprises in China. The IPE website serves as a transparent, independent and systemic tool of evaluating corporate performance for public use.

Lack of interest from legal community

Professionals

Pollution victims are often unable to afford the high litigation costs associated with formal legal representation. And because environmental cases are comparatively more difficult to win in China, many law firms are reluctant to take on these cases. This explains why there are relatively few environmental cases filed in China compared to the country's multitude of environmental problems and massive population.³⁰

In 2007 Central China Television (CCTV), China's government TV network, used information from IPE's China Water Pollution map to capture on camera pollution from the Tianshui Benma Beer Factory (a Carlsberg joint venture) in Tianshui City, Guansu Province. After the program was aired, the local government suspended brewery operations and required the factory to hasten construction of a sewage-treatment facility.

Insufficient interest from law firms and the difficulty victims of environmental violations have when pursuing legal avenues has created a vacuum that NGOs are attempting to fill. Some NGOs offer legal assistance, explaining relevant environmental laws and regulations to victims of industrial pollution, and sometimes providing pro-bono legal service.

Technical support or consultants for the government

Academic organisations and individuals

Academic experts act as technical support or consultants for the government and take part in the preparation of environmental laws, regulations and standards. These individuals also undertake feasibility studies and develop remediation plans for critical projects. In addition, experts also carry out environmental and/or social-impact assessments for new projects, and attend public participation workshop as invited consultants.

In Oct-98, Professor Wang Canfa founded The Center for Legal Assistance for Pollution Victims (CLAPV). CLAPV provides pro bono legal aid to victims of environmental damage.

Academia also getting involved

Academic experts are also known to offer their services to assist local communities in evaluating the potential risks associated with existing or planned projects. Their expert opinions have been known to influence government decisions and project planning, as well as trigger public action. For instance, Professor Zhao Yufen from Xiamen University, a famous chemist in China and member of The Chinese Academy of Sciences, and a resident of Xiamen Island, alerted the public to the potential impact of a proposed p-xylene project. (See case study 6 on page 27).

CLAPV set up a hotline as early as 1999 to collect complaints and provide information about environmental regulations.

It now offers an online service to address complaints from pollution victims. By the end of 2007, CLAPV has provided legal aid in more than 100 pollution cases.

³⁰ According to statistics from the Supreme Court, environmental lawsuits (including civil, administrative and criminal cases) from the year 1998 to 2001 reached more than 20,000 cases. Nevertheless, when compared to China's immense population the absolute number of lawsuits remains low. The rate of increase of environmental lawsuits is roughly 25% annually

Figure 13

A growing list of NGOs focused on the environment

Type	Active NGOs in China	Focused area				
		Education/ research	Public participation	Corporate	Funding/ capacity building	
Local NGOs	<i>Governmental NGOs</i>	<input type="checkbox"/> China Environment Culture Promotion Association		•		•
		<input type="checkbox"/> All China Environment Federations		•	•	
		<input type="checkbox"/> China Environmental Protection Foundation	•			•
		<input type="checkbox"/> China Association for NGO Cooperation		•		•
	<i>General NGOs</i>	<input type="checkbox"/> Friends of Nature,	•	•		
		<input type="checkbox"/> Global Village of Beijing	•	•		
		<input type="checkbox"/> Green Earth Volunteers	•	•		
		<input type="checkbox"/> Institute of Public and environmental Affairs		•	•	
		<input type="checkbox"/> Fuping Institute for Environment and Development		•		•
		<input type="checkbox"/> Center For Legal Assistance to Pollution Victims		•	•	
		<input type="checkbox"/> Friends of Green in Tianjin	•	•		
		<input type="checkbox"/> Voice of Green in Shijiazhuang	•		•	
		<input type="checkbox"/> Green Hanjiang	•		•	
		<input type="checkbox"/> Huai River Guards	•		•	
		<input type="checkbox"/> Green Camel Bell	•		•	
	<input type="checkbox"/> Green Watershed		•	•		
	<i>Student environmental protection societies</i>	<input type="checkbox"/> Senol in Beijing Forest University	•			
		<input type="checkbox"/> Green Society in Beijing University of Clothing Technology	•			
		<input type="checkbox"/> Green Students Forum	•			
<input type="checkbox"/> Tsinghua Environmental Protection Association		•				
<input type="checkbox"/> Green Family in Beijing Transportation University		•				
International NGO	<input type="checkbox"/> Greenpeace		•	•		
	<input type="checkbox"/> Environmental Defence	•	•			
	<input type="checkbox"/> Conservation International China Program		•		•	
	<input type="checkbox"/> World Wildlife Fund (WWF)	•		•		
	<input type="checkbox"/> The Nature Conservancy	•		•		

Source: IPE/ WWF

Early days in public participation

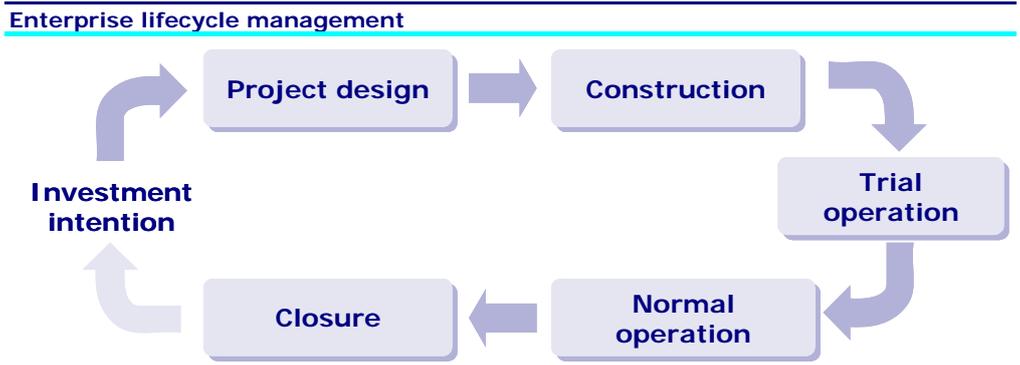
Public participation in project lifecycles

As mentioned previously, this report focuses only on those forms of public participation in which public action directly affects corporate and industrial operations, as this level of participation has spurred the most intense conflicts. It is therefore befitting to analyse growing public engagement within the different phases of an enterprise’s lifecycle to better understand why and how conflicts occur (and how this has reduced speed to market and earnings for state operators and international companies), and lastly, how these conflicts and delays can be avoided.

The lifecycle of an enterprise has five phases: project design; construction; trial operation; normal operation; and closure (see Figure 14). While there may be public participation elements throughout the enterprise’s lifecycle, it is more common for the public to engage during project-design (when the EIA is implemented) and operation phases. The risks to investors are, therefore, more significant during these phases. As the government shapes and builds China’s harmonious society, neutralising the conflict between the public and private sectors is a key priority.

Figure 14

Typical cycle of involvement



Source: IPE

Current involvement

Figure 15

Public participation in China’s EIA process

EIA process		Public participation
Screening		<input type="checkbox"/> No action
Scoping		<input type="checkbox"/> No action
Environmental assessment and preparation of EIA Report	Preparation and government review of EIA Outline	<input type="checkbox"/> No specific requirement for a public opinion survey
	Preparation of EIA report	<input type="checkbox"/> Disclosure of the project information within 7 days when the EIA entity has been hired; <input type="checkbox"/> Disclosure of the project’s environmental information during the EIA preparation; <input type="checkbox"/> Disclosure of a simplified EIA report before submitting the full-length EIA report; <input type="checkbox"/> Collection and review of public comments within 10 days.
Review and decision-making		<input type="checkbox"/> Take the public’s comments into consideration <input type="checkbox"/> Enclose public’s comments in the EIA report, accompanied by an explanation of whether the developers accept or reject the proposed public opinion

Source: WWF, IPE

Comparative analysis of EIA; China and the US

The United States' National Environmental Policy Act (NEPA) was the world's first law to require public participation in the environmental decision-making process when it was enacted in 1970. A similar law, the Environmental Impact Assessment Law (EIA Law), went into effect 23 years later in China, and was the country's first law to require public participation in *any* decision-making process.

China EIA system lacks the public participation we see in the US

However, China's new EIA system remains quite different from the US model, as it lacks the degree of public participation supported by Western law. Through a comparative analysis, in this section we explore how the aforementioned gap in public participation makes it easier for proposed projects to pass EIA regulations in China than in the US.

Step 1: Screening

No public input in the early stages

In the US, the public is involved right at the beginning of the EIA process. Although federal agencies are allowed to exempt projects from conducting a full Environmental Impact Statement (EIS), agencies are often quite cautious when issuing such leniencies, which are known as "Findings of No Significant Impact" (FONSI), since doing so opens the door to potential lawsuits.

If it is decided that an EIS is necessary, a Notice of Intent (NOI) is issued to inform the public of the proposed project. In most cases, the NOI will provide channels for stakeholders to access important information and details of scheduled scoping meetings.

In China, on the other hand, the EIA Law extends to government agencies the right to decide the extent to which a project shall undergo the environmental impact assessment process. The public has little opportunity to access information regarding proposed projects or participate in the decision-making process during the initial stages of design.

Step 2: Scoping

Also excluded from scoping phase

The US NEPA law requires that government agencies organise or sponsor scoping meetings for various stakeholders to voice concerns and recommend issues that should be covered by the EIS. If scoping meetings are not held, the agencies solicit written comments. A 30-day period is allotted to gather public comments during the scoping phase.

In contrast, Chinese EIA rules do not require developers to engage concerned stakeholders during the scoping phase. The public is, once again, excluded in the early stages of the EIA process.

Step 3 Environmental assessments and preparation of the EIA report

In the US, the draft EIS is delivered to the Environmental Protection Agency (EPA) and then published for public review and comments. The review period lasts roughly 45 days. During this time, the public can demand public hearings to discuss the draft EIS. If a public hearing is held, the lead agency publishes the draft EIS, along with comments received, and other relevant documents, and makes this available 15 days before the hearing. The accumulated public comments during the hearing are reviewed and the EIS is finalised.

In China, the process of preparing the EIA report begins with the drafting of an outline of the EIA by certified EIA institutions hired by project proponents. The environmental agency reviews and approves the outline, and the EIA

institution drafts an EIA report for approval. This process was chiefly concerned with scientific study and administrative review and approval. The requirements for collecting public opinions were superficial and the public had little opportunity to access information or become involved.

SEPA set out guidelines as recently as 2006

The situation changed in February 2006 when SEPA issued the *Provisional Measures on Public Participation in Environmental Impact Assessment*. These measures made the disclosure of basic information regarding the project, as well as the contact details of the developers and the EIA institution, a fundamental requirement. The Provisional Measures require the disclosure of contact information and basic backgrounder within seven days of the EIA entity being hired. This allows the public to submit concerns and suggestions, although at this stage it is difficult for concerned citizens to raise informed questions. Extensive information disclosure and public participation takes place within a very limited space of time before the draft EIA report is submitted to environmental agencies for approval.

Figure 16

Taking it to court



Note: Wang Canfa, Head of CLAPV entering a court room with pollution victims. Yuanmingyuan Public Hearing. This hearing, which is cited in our report, is the first environmental hearing held in China on the national level. The pictures showed the hearing presided by Pan Yue, Vice Minister of SEPA. Source: CLAPV, China Environmental Culture Promotion Association

Figure 17

First ever national-level environmental hearing



Basic disclosure requirements

Although the disclosure requirements are very basic when compared to NEPA, the *Provisional Measures on Public Participation in Environmental Impact Assessment* is still a vast improvement over the general requirements enshrined in the EIA Law. For instance, Article 9 states that the following details shall be disclosed before the submission of an EIA report:

- ❑ Description of construction program;
- ❑ Description of potential environmental impacts and summary of preventive or meditative measures;
- ❑ Summary of the conclusion of the EIA report;
- ❑ Method and timeframe for public access to a summary of the EIA report;
- ❑ Issues raised for public comment;
- ❑ Specific channels for public comment; and
- ❑ Valid period for public comment.

Affected citizens are highlighted by the law

The Provisional Measures on Public Participation in the Environmental Impact Assessment also clarifies the range of stakeholders to be consulted. According to Article 15, "stakeholders" include citizens, legal persons or representatives of other organisations that would be affected by the project.

30-day waiting periods in the US

Step 4 Reviews and decision making

In the US, the final version of the EIS is submitted to the EPA and distributed to relevant government agencies. The document is also shared with concerned stakeholders who participated in the consultation process, and a 30-day waiting period is provided to allow the public to review if and how their comments have been considered. Any objections from the public, even at this late stage, can affect the final decision. Once a conclusion has been reached, a *Record of Decision (ROD)* is filed with the Federal Register by the lead agencies.

Since 2003, Chinese EIA legislation requires developers to explain why they accepted or declined suggestions offered by the public. According to the EIA Law, when submitting the Environmental Impact Report, the enterprise must provide an appendix detailing reasons for accepting or rejecting suggestions made during the course of public consultation.

The decision-making process is just starting to include the public

The Provisional Measures on Public Participation in the Environmental Impact Assessment gives more specific requirements. Article 17 states 'the construction enterprise and EIA organisation should take the public comments into consideration, and enclose these into the EIA report, with explanation of whether they accept or reject the proposed public opinions. A particular environmental agency can organise an expert commission to assess the feasibility of public comments and provide professional suggestions. While making decisions, the environmental agency should take the decisions of the expert commission into account.'

This rule is supported by Article 18 of the same measures, which says 'while the construction enterprises or appointed EIA organisation have rejected public comments without explanation - or the explanation sounds unreasonable - the public can still appeal to the environmental agency, accompanied by detailed and written comments. The environmental agency should verify such comments when necessary.'

Case study 1: The Nu River hydropower development plan

The case of Nu River is tightly linked to the new EIA law. In August 2003, central government agencies reviewed the Nu River hydropower development scheme but delayed approval due to environmental concerns. A month later, the EIA Law came into effect. With this new legal foundation, several environmental groups, such as Green Watershed, Green Earth Volunteers and the Friends of Nature called for experts and researchers to review the likely environmental and social impacts of the Nu River plan.

When it was revealed in 2005 that the Nu River hydropower development scheme was again on the verge of being approved, 61 environmental groups and 99 individuals wrote an open letter to the central government agencies, pointing out that the 'EIA Report and related documents concerning the Nu River project still have not been disclosed...We believe that it does

not fulfil the legal requirements for such a major plan if it bypasses the public participation requirements in Chinese law. The decision-making under such circumstances lacks public support and cannot tolerate history's scrutiny.'

Citing the EIA Law, the Administrative License Law and the State Council's Guidelines for Full Implementation of the Law, which requires the disclosure of government information, the letter called for the decision-making authorities to disclose the EIA report of the Nu River dam before making a decision, stating that, 'the right to be informed is a prerequisite for public participation.' Although the final decision has yet to be made, the original hydropower development scheme proposed in 2003 will be scaled down substantially to reduce its environmental and social impact.

Public participation in China's EIA is in its very early stages

Public participation requirements in EIA process

The implementation of public participation rules in the EIA process is still in a primitive stage. The requirements are very basic when compared to the more sophisticated US model. In fact there are still a large number of projects that have not implemented the EIA properly, or in many cases, have not implemented it at all.

According to a 2006 survey on new projects under construction conducted by SEPA, the National Development and Reform Commission (NDRC) and the Ministry of Land and Resources, the rate of EIA implementation is low and violation of environmental rules is rampant. While provinces claim that the EIA was implemented at a rate of 86.9%, the central government's own audit found that the rate was much lower in provinces such as Shanxi, Guangdong, Guizhou, Yunnan and Gansu, at well below 50%.³¹

Law still doesn't prevent individuals from being excluded

In cases where the rules of the EIA are violated, neither the EIA Law nor the Provisional Measures on Public Participation in Environmental Impact Assessment provide measures for legal relief. This means that when the public is denied the opportunity to participate, individuals cannot go to the court to seek justice over infraction of the law.

Information disclosure is insufficient

According to Chinese legal requirements, the public has a maximum period of 10 days to comment on the proposed project. Since 2006, an increasing number of proposed projects have begun making initial disclosures and posting abridged editions of the EIA report; however, these disclosures are often very brief and lack essential details. The effectiveness therefore of stakeholder intervention is severely limited by the scant information available.

The scope and depth of public hearings and consultations is limited

While the EIA Law states that government agencies and the construction enterprise should hold public hearings for demonstration and opinion gathering, or adopt similar measures to solicit the opinions of relevant enterprises, experts and citizens on the Environmental Impact Report, SEPA has in fact organised only one public hearing to date. (See case study 2) Public hearings are not a favoured practice, not only because they require time and resources to organise, but more so because they prevent powerful interests from dominating the decision-making process.

EIA institutions control public opinion surveys, which is problematic because it may be in the best interest of these institutions to get the projects approved (given that EIA institutions are commissioned by developers to prepare the EIA). Affected communities and concerned NGOs often feel that EIA institutions conduct very superficial opinion surveys, which deprive such groups of their legal right to genuinely participate in the decision-making.

Case study 2: The Lake Lining Project in Yuanmingyuan Garden

In March 2005, the public found that the bottom of the lake in the historical ruins of Yuanmingyuan Garden was going to be lined by polyethylene geomembrane (a thin film extensively used for landfills, sewage and irrigation projects). The case aroused heated debates amongst scholars, scientists, administrators, environmentalists and concerned citizens.

After it was found that the project was carried out without an EIA report, SEPA stopped the ongoing project and organised a public hearing to solicit public opinion. This was the first public hearing organised by the body and was broadcast live online. An EIA report was then prepared by Tsinghua University, and the draft version was published online before being approved.

³¹ *People's Daily*, EIA failed to serve effectively as a "threshold", 18 January 2007

**Compromise on EIA
may lead to conflicts
with communities**

It is worth mentioning that in the case of the Liulitun Municipal Waste Incineration and Power Generation Project (see case study 3), even as SEPA announced its decision in favour of the developer, a SEPA official in charge of the Law and Regulation Department characterised the case as clearly demonstrating the inability of existing legal requirements of public participation to meet the needs of the public.

Current implementation of the EIA process in China - which involves minimal and sometimes superficial public consultation - means improved speed to market for developers; but this situation may also lead to increased conflicts between communities and the private sector. The public riots against chemical factories in the Huashui town are a case in point (see case study 4).

In cases where the procedural participation requirements have been managed as a mere formality, some communities engaged in letter-writing campaigns, conducted approved demonstrations, initiated administrative reviews and actively engaged media.

Case study 3: Liulitun municipal waste incineration and power generation project

The challenges to public participation in China's EIA process are well reflected in the case of the Liulitun incineration project. The EIA report reveals that 100 copies of public opinion questionnaires were issued during the EIA process and that, of the 85 questionnaires recovered, 71% supported the incineration project. However, the elected representatives of the surrounding communities also issued 400 copies of the same questionnaire and the results were substantially different.

Local residents applied for an administrative review with SEPA in February and March 2007, arguing that the project's chosen site was inappropriate and that the developers failed to comply with the legal requirements for public consultation. The local residents requested SEPA to overrule the approval.

The community believed that the EIA institution violated EIA Law, given that the number of residents consulted was noticeably small and limited in scope. SEPA, however, responded that the developers had organised public-disclosure and expert-discussion meetings, issued questionnaires to the adjacent residents and prepared a public participation chapter.

SEPA concluded that the EIA practice did not violate the EIA Law because the EIA Law only raised principled requirements on public participation and made no specific requirements on the methodology, scope or depth of that participation.

Source: The Beijing Times, <http://news.sina.com.cn/c/2007-04-18/093811665679s.shtml>, 18 April 2007

Case study 4: Huashui Town riots against chemical park

In 1999, the government of Dongyang City, Zhejiang Province approved the establishment of a chemical industrial park in Huashui Town without requiring an Environmental Impact Assessment. According to local media reports, the EIA was deliberately avoided because the region has limited environmental capacity, and was therefore not a suitable site for a chemical park.

Since 2001, 13 chemical factories have been built in Huashui. Since the factories have been operational, villagers have reported birth defects and crop failures, which have been traced to water contamination. After four years of dealing with a local government that pretended these problems did

not exist, and faced with the threat of more chemical factories in the pipeline, the villagers developed a new strategy. On 10 April 2005, residents blocked the main road leading to the factories and mounted slogans on the factory walls that read: 'Give us back our land' and 'We want to survive.' Later, a large-scale riot erupted when the municipal government ordered its police forces to clear the road. This led to multiple casualties and injuries, inciting villagers to overturn police cars and drive away police officers.

Sources : Zhejiang TV's News Observation, 13 June 2004; China Chemical News, 19 October 2004; Dongyang Daily, 11 April 2005.

Evidence that NGOs are proactive

Way forward

While there are serious gaps in the legal requirements and implementation of public participation in China's EIA, there is evidence that communities and concerned NGOs have been proactive in participating in the EIA, and that government is strengthening enforcement of participation requirements.

Tragic cases such as the riots in Huashui, which in the end serve neither the interests of investors nor communities, could have easily been prevented if communities were consulted and their concerns addressed. Reports show that as awareness of the links between environmental pollution and health increase, a growing number of communities are becoming vigilant and actively engaging in the EIA process.

Landmark cases in 2007

In 2007, there were three cases in which local communities proactively participated in the EIA process: the already mentioned Liulitun trash incineration project, the Shanghai to Hangzhou maglev railway, which aroused significant media attention when local residents expressed grave concerns over exposure to electromagnetic radiation, and the Xiamen p-xylene project, which has been the most influential case to date.

Case study 5: Hong Kong-Shenzhen West Corridor project

Upon its completion, the Hong Kong-Shenzhen West Corridor will be one of four inter-regional vehicular crossings between Hong Kong and the mainland. The major vents designed to discharge tail gas emission and prevent it from accumulating in the long tunnels of the crossings concerned local residents in the adjacent communities.

In August 2003, residents circulated petitions against the project, which lasted for the next two years and caused significant delays in project construction. The residents wrote letters to local and central government agencies calling for a revision of the project's design. The Shenzhen authorities attempted to appease residents by addressing the environmental impact of the project in an ad-hoc manner, but this only

motivated more communities to make subsequent demands.

In the end, residents raised their own funding to hire lawyers. After they acquired the last seven pages of the EIA report, which provided the formula and the result of calculations of future emissions of NOx, some residents made their own calculations and came up with much higher emissions data. The Shenzhen government organised another major dialogue with local communities in April 2005. The construction of Hong Kong-Shenzhen West Corridor Project finally started in May 2005.

Source: Investigation of the Incident of the EIA of Shenzhen-Hong Kong West Corridor Connection Project, *21st Century Business Herald*, 16 May 2005

Case study 6: Xiamen PX project

In 2005, a petrochemical company from Taiwan proposed to build a p-xylene (PX) manufacturing plant in Haicang District of Xiamen City. The 10.8bn yuan plant for Tenglong Aromatic PX (Xiamen) was set to produce 800,000t of paraxylene and contribute 80bn yuan annually to the local economy. The EIA of this project was approved in July 2005 and the project broke ground at the end of 2006.

In March 2007, Professor Zhao Yufen from Xiamen University, a famous chemist in China and member of The Chinese Academy of Sciences, together with other advisers in local government, submitted a signed statement saying that the PX project was situated too close to residential areas. The letter was publicised by the media, which triggered a peaceful community petition organised via the

internet and SMS. The local government suspended the PX project and an additional EIA was conducted.

The EIA report was released on 5 December 2007, and was in favour of the local community as it concluded that it was unreasonable to build Xiamen's Haicang Chemical Industrial Zone adjacent to the new urban area in Haicang. It suggested that the Xiamen government should either relocate the chemical plant, or stop building the "Sub City Centre" right beside it.

The Xiamen government openly solicited public comments for 10 days and then organised a public forum on the construction of the PX plant in Xiamen on 13 December 2007.

The EIA law was a milestone

For all of its weaknesses, the EIA Law remains a milestone piece of legislation, having laid the legal foundation for public participation in environmental decision-making in China. The affiliated Provisional Measures on Public Participation in Environmental Impact Assessment is also groundbreaking, as it detailed, for the first time, specific mandatory requirements on information disclosure.

The Chinese government also now appears to be beginning to prioritise enforcement of the EIA law. A large number of companies have been punished and exposed for failing to follow the procedural requirements of the EIA. For instance, SEPA has even imposed a moratorium on the approval of any new projects in a group of cities and development zones³². It is also starting to reject projects for failing public participation requirements (see case study 7).

Internet helping engage more stakeholders

The internet obviously plays a critical role in helping to engage a broader range of stakeholders in the EIA process, as it provides communities access to information that was previously inaccessible. When the EIA institution responsible for the A'hai Hydropower Station on Jinsha River in Yunan published its findings on the internet on 30 October 2007, it was the first time that EIA information regarding a project of such a sensitive nature was disclosed publicly in China. The EIA report includes a summary of potential environmental impacts, such as blocked migration paths of different species of fish, inundation of habitats, significant biodiversity loss, involuntary relocation, pollution discharge and soil erosion caused by large-scale excavation.

In conclusion, although the current form of China's EIA remains weak, the trend is moving toward more specific requirements and stricter enforcement of procedures. Investors eyeing strategic, long-term interests in China need to be prepared for more vigorous EIA implementation in the near future, which will result in longer administrative processes, more public dialogue, in-depth studies of potential impacts and alternative options, and a genuine decision-making exercise with no foregone conclusion.

Case study 7: SEPA rejects projects that failed public participation requirements

According to an official in charge of SEPA's Policy and Regulatory Department, in the 12 months after February 2006, when the Provisional Measures on Public Participation in Environmental Impact Assessment came into effect, SEPA had rejected the EIA documents of 43 major industrial projects, including some in the thermal power, chemical, motorway and railway industries.

With a total proposed investment of 160bn yuan, these projects were rejected for either failing to meet disclosure requirements or because of public dissent over their projected environmental impact.

Although some projects were eventually approved, their initial rejection signifies that failure by enterprises to engage in public assessment will result in delays in the approval process.

Source: www.zhb.gov.cn, SEPA issued administrative review decisions over the Liulitun Municipal Waste Incineration Project, 1 June 2007

³² SEPA imposes moratorium on approval of new projects in four watersheds, SEPA, 3 July 2007

Construction and trial operation phases in the lifecycle of an enterprise

Beyond impact assessment

During the construction phase, developers are not legally required to engage the public, except during night-shift construction, which requires that notice be given. It is quite common, however, for local residents to file complaints against construction projects with local Environmental Protection Bureaus (EPB) over the discharge of noise, dust, waste gas, wastewater and solid waste. According to one report, in 2007 a total of 9,687 complaints over construction site noise were filed in Nanjing City; this is 2,039 more than in 2004³³.

Complaints of this magnitude may lead to government fines and media exposure. Although the fines imposed are relatively small, bad publicity is always a risk for major industrial corporations with a popular brand.

Figure 18

Largest industrial dischargers of wastewater

Industry	% of total
Manufacturing of chemicals & chemical fibres	18
Manufacturing of paper & paper products	16
Production/distribution of electric power	13
Smelting and pressing ferrous metals	9
Manufacturing of textiles	8
Food processing	5

Source: NBS

Chemicals and paper plants biggest producers of wastewater

Large infrastructure projects, on the other hand, involve more public engagement, as they entail a longer construction period and are often accompanied by extensive environmental impacts. In some cases, the construction plan is altered and the rate of progress is affected.

Before 2003, when SEPA issued its *Notice on Announcing Checks and Acceptance Results on Environmental Protection Facilities of Completed Construction Projects*, no public participation was mandated during the check and acceptance process. This new regulation passed in 2003 requires the EPB in charge to release a brief version of the check and acceptance report prior to approving the project. The EPB approving or rejecting a construction project must now also consider public opinion.

Case study 8: Qinghai-Tibet Railway and the protection of Tibetan antelope

Qinghai-Tibet Railway is the highest railroad in the world, running through an ecologically sensitive area. In August 2002, the migration of Tibetan Antelope, a protected species, was affected by the construction of the railway.

A Sichuan-based NGO named Green Rivers, which had worked to protect the wildlife and ecosystems of the Qinghai-Tibet Plateau for more than a decade, offered suggestions to the construction crew of the Qinghai-Tibet Railway to halt during certain periods of the day to allow the animals to pass through the

site. The company took this advice and over the span of just 10 days, several thousand Tibetan antelopes crossed the construction site.

In May 2003, after engaging in dialogue with Green Rivers, the company in charge of the construction of the railway issued a document to all of its construction crew, requiring them to ensure smooth migration of Tibetan antelopes. It was reported that construction of the railway was repeatedly halted with the coming of each migration season till the completion of the project.

³³ The number of complaints over construction site noise increased by 2,039, Longhoo Net (Nanjing City's official news portal), 29 December 2005

**Operation phase
in the lifecycle of an
enterprise in China**

Generally, major projects reviewed by SEPA are more strictly examined than those checked by local EPBs. The Check and Acceptance reports created by SEPA also tend to be more detailed than the reports published by local EPBs. The public release of such reports can expose companies that fail to meet emission standards.

The case of Guangzhou Honda's failure to meet emission standards (see case study 9) shows that companies realise that their environmental slip-ups, once publicised, can potentially arouse public concern and damage their brand image.

The operation phase is the longest in the lifecycle of an enterprise. Although there are no legal requirements for companies to engage with the public in their daily operations, there are multiple risks to a non-compliant company when the public does become involved.

Of all forms of public participation, petition through letter-writing, reports made through the environmental hotline, and personal calls to government agencies to file environmental complaints are by far the most common (see case study 10).

The mechanisms available to the public to file environmental complaints should not be underestimated as the central government has shown that it is intent on ensuring safe environmental standards, and that complaints made by communities are taken seriously.

Case study 9: Honda Automobile exposed for failing emission standards

In June 2007, when SEPA uploaded the Public Notice of Environmental Protection Check & Acceptance for Completion of the Construction Project on its official website, Guangzhou Honda Automobile was found to exceed standards in pollution discharge. SEPA stated in the notice that the company would be ordered to take corrective

actions within a strict period. The Institute of Public and Environmental Affairs (IPE) picked up the information and recorded it in its Internet database. Guangzhou Honda approached IPE with proof of the corrective actions it took and follow-up monitoring data, and requested that it be removed from IPE's blacklist.

Case study 10: Water pollution incident in a Japanese micro-motor factory³⁴

According to the Brief of Letters of Complaints to the Shenzhen Bao'an District Environmental Protection Bureau, local residents complained on 5 February 2007 that the Japanese factory often discharged dark-green or light-green wastewater. The EPB immediately sent staff to monitor the effluents from the factory and found that the workers, who were cleaning residual paint powder from equipment in the paint shop, had discharged wastewater into sewage pipes without any treatment.

Law enforcement officers ordered the workers to immediately cease their activities and ensure that all factory wastewater be directed into sewage-

treatment facilities and discharged according to proper standards. A punishment application was also submitted.

Based on this record, the IPE listed the company as a non-compliant enterprise in the China Water Pollution Map database. In September 2007, the factory approached IPE and explained what had gone wrong during this one incident. The company committed to a third-party environmental audit, hoping to convince the public that it had addressed its concerns. On 12 October 2007, the third-party audit was carried out in the factory by URS Corporation under the supervision of IPE and two environmental volunteers from Shenzhen.

³⁴ Note: As the company has undergone a third-party environmental audit and is in the process of reviewing its processes, the name of the company has been omitted

Hebei is one of China's most drought-ridden provinces

Figure 19

Average water consumption per unit of industrial product in Hebei province	
Industrial product	Water needed (m ³)
1 tonne raw coal	1
1 tonne crude oil	0.9
1 tonne rice	0.06
1 tonne sausage	193
1 unit pig slaughter	0.52
1 tonne biscuit	5
1 tonne milk	15
1 tonne beer	14
1 km cotton cloth	15
1 unit furniture	0.2
1 tonne packaging paper	100
1 tonne toilet paper	340
1,000 pen	8
1 tonne gasoline	2.65
1 tonne paint	30
1 tonne carbamide fertiliser	6.8
1 tonne TNT	17
1,000 tubes of toothpaste	2.5
1 tonne penicillin	9,800
1 tonne auto tire	88
1 tonne concrete	3.5
1 tonne glass	6.3
1 tonne crude steel	7.5
1 tonne flat steel product	17
1 tonne aluminium product	63
1 unit sedan	100
1 unit refrigerator	2
1 unit PC	24
1 unit TV	0.1
1 m ² house construction	1

Source: Hebei provincial government, CRR

Letters of complaint do work

Cast study 11, reported in *The Wall Street Journal*³⁵, describes a surprise pollution check ordered by SEPA Minister Zhou Shengxian after he received a complaint letter from locals.

However, as the challenges of regulatory enforcement and the sheer scale of environmental problems increase, more unconventional tactics, such as public disclosure and media campaigns are gaining popularity among communities, NGOs and environmental officials.

Case study 11: Fuan Textile's surprise check

During the summer of 2007, Chinese government investigators crawled through a hole in the concrete wall that surrounded the Fuan Textile Mill in southern China and launched a surprise inspection of the plant.

What they found caused alarm for dozens of American retailers, including Wal-Mart Stores, Lands' End and Nike, which use the company's fabric in their clothes.

Villagers complained that the factory, majority owned by Hong Kong-based Fountain Set Holdings, turned their river water dark red. Authorities discovered a pipe buried underneath the factory floor that was

dumping roughly 22,000 tonnes of water contaminated from its dyeing operations each day into a nearby river, according to local environmental protection officials.

Fuan was ordered to pay a fine of 210,000 yuan and suspend part of its polluting process (to reduce discharge).

In August 2006, Fuan was served a notice by Guangdong and Dongguan EPBs to pay a discharge fee of 11.55m yuan for nearly 10m tonnes of unregistered wastewater it discharged.

Source: *Xinhua News Agency Net Telegraph*, 27 August 2006

³⁵ Jane Spencer, "Downstream effect: US retailers impact China's water pollution - Demand for Low Prices Spurs Shoddy Practices; River Runs Red with Dye" *The Wall Street Journal Asia*, 22 August 2007

Rather pay fines than clean up

Figure 20

Satirical portrayal of a case in Guangdong



As the company owner tells the government inspector 'No, never,' he pressed the button, thinking 'The signal has been sent to turn off the valve.'

Source: A factory in Guangdong that discharges 20,000 tonnes of wastewater a day would rather pay fines than treat its waste, *People's Daily*, 19 June 2006, Cartoon by Qiu Jiong.

Government disclosure exposes polluters to public censure

The central and local governments are increasingly using disclosure tactics to pressure enterprises into complying with environmental regulations. The *Cleaner Production Promotion Law* (see Appendix 2) requires relevant administrative departments to publish the names of polluting enterprises through the media. Big companies with powerful brands are more vulnerable to this "name and shame" strategy as their violations will inevitably arouse more public attention. Multinational companies found violating environmental rules in recent years include Du Pont, Pepsi, Bridgestone, Foster's, Samsung and San Miguel. (For a more extensive list see Appendix 1.)

Case study 12: Kunshan City's colour codes to rate environmental performance

Kunshan City in Jiangsu evaluated the environmental behaviour of 265 industrial enterprises in 2006, and issued a Public Notice of Kunshan City on Industrial Enterprises Environmental Conduct Rating 2006.

IPE's China's Water Pollution Map recorded the red and black enterprises from this public notice and included them in the list of non-compliant enterprises, many of which were large overseas-invested companies.

Case study 13: Actions taken to clean up Ziya River

In 2007, Hebei Province launched the Ziya River Cleanup Campaign. Environmental authorities investigated the pollution of rivers and canals in Shijiazhuang City and monitored the pollution sources. The activity was comprehensively covered by the local media, and the fines imposed on the polluters were published on the local EPB website.

IPE also posted the list of polluters on its website, one of which was Nissin Hualong Foods (one of China's largest instant noodle manufacturer), which was exposed for digging a large pit to discharge effluent. Nissin Hualong Foods later approached IPE and committed to taking corrective actions.

Source: *Hebei Daily*, 25 September 2006

In 2003, SEPA issued a Notice on corporate environmental information disclosure, which calls on enterprises to publicly share what was once confidential information regarding factory emissions³⁶. Also in 2003, Chinese environmental authorities began testing a pilot program informally known as GreenWatch in key cities. The program was developed by China's Environmental Protection Agency, with technical assistance and advice from the World Bank's Development Research Group. SEPA issued its *Guiding opinion about accelerating the work of evaluating environmental behaviour of enterprises*³⁷ in 2005, which explicitly prescribed the evaluation criterion.

In 2005, with a US\$268,000 grant from the Trust Fund for Environmentally and Socially Sustainable Development, GreenWatch was extended to seven provinces, covering 8,500 firms and 100 million people³⁸. The program interprets pollution data for the general public, using colour to highlight the cleanest and dirtiest factories. It divides environmental performance into five categories, each represented by a colour - green, blue, yellow, red and black - with green being the best and black the worst.

After rating and colour-coding the environmental performance of various enterprises, the program sends information to the public through the media; mainly Chinese-language newspapers and television stations.

Government conducts environmental checks with media

Environmental agencies at all levels will make regular and surprise environmental checks on enterprises. Companies found breaking environmental rules may be fined and ordered to make corrective actions within a specified time limit. So far punishment records are not always made accessible to the public.

Case study 14: Birla Jingwei Fibres suspended for water pollution

A community group in Xiangfan City, Hubei Province, contacted IPE in June 2007 and accused Birla Jingwei Fibres Company Limited (BJFL) of discharging highly polluted wastewater into the upper stream section of the Hanjiang River. BJFL is a joint venture between India's Aditya Birla Group and China's Hubei Jingwei Chemical Fibre.

IPE conducted intensive research based on community complaints. In July 2007, IPE found a report by *Chutian Metropolitan News*, which mentioned that when meeting with BJFL, the Mayor of Xiangfan City expressed his support for the expansion plan of BJFL, but required the firm to comply with discharge standards within three months. Based on this report, BJFL was listed by IPE on the China Water Pollution Map.

When CCTV learned of this situation from IPE in September 2007, CCTV decided to conduct its own investigations, which resulted in video footage of BJFL's pollution discharge. The local EPB confirmed with CCTV that BJFL's discharge exceeded standards. On 29 September 2007, BJFL was exposed on CCTV's business channel.

On 1 October 2007, BJFL was ordered by Xiangfan City to suspend production until it took corrective actions and could ensure compliance with discharge standards. On 11 December 2007, IPE was informed by a local environmental group that it had been invited to inspect the newly built pollution control facilities of BJFL.

³⁶ http://www.zhb.gov.cn/info/gw/huangfa/200309/t20030902_86629.htm, Notice on corporate environmental information disclosure, SEPA, September 2, 2003

³⁷ http://www.zhb.gov.cn/info/gw/huangfa/200511/t20051121_71961.htm, Guiding opinion about accelerating the work of evaluating environmental behavior of enterprises, SEPA, November 21, 2005

³⁸ <http://go.worldbank.org/DQA6LN8X10>, Polluters in China Face Public Scrutiny

However, it should be noted that increasingly, enforcement records are published by media or posted on websites. In recent years, central and local environmental agencies often include journalists and reporters in their enforcement campaigns. For example, the National People's Congress organises regular inspections with media to expose polluters.

Environmental lawsuits up 25%

Litigation is another channel for the public to affect corporate environmental behaviour, and the number of environmental litigation cases is growing. According to statistics from the Supreme Court, the number of environmental lawsuits (including civil, administrative and criminal cases) topped 20,000 from 1998 to 2001, with growth of roughly 25% annually in recent years. Even with the increase, the number remains small as environmental litigation still encounters several paralyzing difficulties.

Bringing cases can be hard

In some cases, like the attempt to sue a polluter that caused the 2005 Songhua River toxic spill which shut down the city water supply for over three million people, the bills of indictment were rejected without the court issuing a written response. In addition, low compensation given to victims of environmental damage provides a further disincentive for pollution victims from filing environmental lawsuits and lawyers from representing such litigations.

Better to avoid environmental litigation

These legal barriers cannot be overturned without a major transformation in the legal system, which means that for now it is unlikely that polluting enterprises will be made accountable through the Chinese legal system, although companies with powerful brand names would do better to avoid environmental litigation, as it may bring bad publicity.

Lawyers representing environmental cases have learned to make skilled use of the media to generate public pressure, which can help prevent political intervention from polluting enterprises' more influential allies in government. Lawyers regularly brief newspapers, TV and radio stations on the relevant cases and sometimes they bring reporters when conducting investigations.

Case study 15: Hangzhou City government set prize for reporting legacy pollution

On 6 July 2004, Hangzhou EPB launched a so-called "Land Mine Campaign" aimed at identifying legacy hazardous waste generated before 1996 at old workshops, production lines and storages of enterprises conducting chemical manufacturing,

electric plating, pharmaceutical production and metallurgy, in Gongshu, a district of Hangzhou city. The local EPB offered prize money of between 50 yuan and over 1,000 yuan for useful information provided by citizens.

Case study 16: Residential housing developer pressured to clean up acquired land

Beijing Wanke won the bid for a piece of land in Beijing's Fengtai district in July 2007. But data was then posted on the internet, quoting a 2006 document from the Beijing municipal EPB that stated the land acquired by Wanke was severely polluted and was not suited to residential use.

According to this document, the piece of land was formerly shared by a pesticide factory and paint factory, and most of the land's soil was polluted by DDT and 666 over the 50 years of manufacturing;

adding that up to 139,800 cubic meters of contaminated earth needed to be disposed of.

The case aroused major public concern because the land was to be used for residential buildings. In August 2007, Beijing Wanke responded to public concerns and committed to cleaning up the site. Wanke said it would develop the land after the municipal EPB had checked and accepted the land to ensure the safety of future clients who bought properties there.

They are even known to publish their own articles in newspapers and on news websites. Environmental degradation in China is an urgent issue, and these days public resentment against polluters is strong, and people are rarely sympathetic towards those companies accused of polluting.

Firms need to prepare for increasing pressure on multiple fronts

The growing social consensus around the urgency of environmental protection in China has created a trend in which the once disaggregated stakeholder groups - ie, communities, NGOs, environmental government officials and the media - are working together to pressure polluting enterprises to take responsibility for their environmental footprint.

Closure phase

The environmental responsibility for the last phase in the lifecycle, closure of an enterprise, remains a legal vacuum in China. Nevertheless, the issue has received increasing social attention, as a large number of enterprises were relocated from city centres to ease land constraints and reduce environmental impact.

In July 2004, SEPA issued the Notice on Better Management of Pollution Control Work in Corporate Relocation, requiring that all enterprises generating hazardous chemicals have their brownfield³⁹ land tested by certified environmental monitoring stations. It also clarified that the pollution caused by legacy pollutants should be treated, and the soil's function restored by the original owners. While awareness of this rule is presently very low, the Huangzhou City case (see case study 15) may be worth noting, as the government in this instance tried to involve the public in post-closure pollution control.

A more recent case in Beijing demonstrated how public concern over legacy pollution forced enterprises to take responsibility for environmental damage caused. (See case study 16.)

Fundamental solution is to control pollution

The social awareness of toxic contamination of brownfield sites is likely to rise quickly due to cases such as these. Enterprises can prepare for this by measuring the baseline level of pollution before they move onto a site and taking new measurements before plant closure. Of course, a more fundamental solution is to control pollution and to prevent permanent contamination of soil and aquifers on the site during operations.

³⁹ Brownfield is an area of land previously used or built upon, as opposed to Greenfield land, which has never been utilised

New trends in public participation

In the previous sections we identified gaps in China's disclosure culture, particularly as it relates to environmental regulatory violations. The weaknesses of the current system have hampered China's attempts to achieve ambitious environmental targets and allow for meaningful public participation.

Public Information Disclosure Law

So, when the State Council issued the *Government Information Disclosure Regulation*,⁴⁰ it was appropriate that SEPA would be the first ministry to respond with the announcement of its *Environmental Impact Disclosure Measures* (Trial Implementation) to be officially implemented in May 2008.

Essentially, SEPA's *Measures* promote pollution reduction by strengthening public involvement in the environmental decision-making process. Upon release of the measures, Pan Yue, Vice Minister of SEPA, was quoted as saying that the new requirements for non-compliant enterprises to disclose environmental information and violations of discharge standards would empower the broad masses to participate in environmental management.

The measures stipulate that:

- ❑ Enterprises listed for violating discharge standards or exceeding discharge quota limits will publish their discharge data within 30 days in local media and register the data with the local government agency. The local agency has the right to verify data published by enterprises.
- ❑ Polluting enterprises that fail to comply with disclosure requirements will be fined up to 100,000 yuan and their discharge data will be published by relevant local government agencies.
- ❑ The environmental agencies will be legally bound to disclose the list of polluters within 20 days on the agency website or through communiqués, press conferences, newspapers, radio or television.
- ❑ If the environmental agencies fail to publish such a list, the measures entitle the public to apply for the disclosure. The environmental agencies shall respond within 15 days, or no more than another 15 days of extension.
- ❑ If an environmental agency turns down the public application for disclosure, the public may report this to the superior environmental authority, which shall then urge the subordinate agency to fulfil its disclosure duties. The public may apply for administrative review or file administrative suits if they believe that the rejection of disclosure has infringed upon their legal rights.

But fines are low at only 100,000 yuan

The measures make the following information available to the public:

- ❑ The list of enterprises violating discharge standards or exceeding discharge quota limits;
- ❑ The letters, visits and complaints filed over pollution caused by enterprises, and the result of their disposal;

Public action is now available

⁴⁰ The Regulations on Government Disclosure of Information was approved by the State Council on 17 January 2007 and will take effect on 1 May 2008. Article 1 states that the aim is to ensure that citizens, legal persons and other organisations can obtain government information by lawful means and increase government transparency

- ❑ The administrative punishment, administrative review, administrative lawsuit and administrative enforcement;
- ❑ The list of enterprises that cause major and extremely large pollution accidents and incidents; and
- ❑ Enterprises that refuse to comply with the effective administrative punishment decisions.

Corporate environmental data required

As Chinese civil society prepares to take advantage of the emerging legal opportunities to access corporate discharge data, companies operating in China need to start anticipating the necessity for short- and long-term measures to cope with this evolving situation. In the short term, companies in China will need to ensure that they have corporate-discharge-monitoring and data-collection systems in place.

The Measures make it possible for organisations like IPE to fill in the blanks on enterprises caught violating emissions standards. It is this historical lack of data that has made it difficult for the public to make informed and strategic interventions in the environmental process.

Gaps in data collection

IPE found that many companies, including large multinational companies (MNCs) operating in China, have major gaps in their data collection, categorisation and documentation of discharge data. Some MNCs do not have government monitoring data or self-monitoring data of their China-based subsidiaries. These corporations may encounter difficulties if their subsidiaries are listed by agencies for violation of standards, given that they have no access to data to meet the legal requirements of disclosure.

IPE plans to update its corporate discharge datasheet after the Measures come into effect in May 2008. This new data can make IPE's database more comprehensive, as it will allow users to compare the volume of discharge by listed polluters.

Discovering and publishing pollution events

The implementation of the *Measures* is likely to change the rules of the game; enterprises will need to be prepared to operate in a more transparent environment. Companies in China need to recognise that such a change is in line with global trends. And, leading companies will need to go further than simply adapt to the change - they need to stay ahead of the curve.

IPE's initiatives have encouraged companies to take actions to fill this information gap.

The US experience demonstrates that when a company improves performance with its Toxic Release Inventory (TRI), it can generate good publicity and help the company regain public trust. A more transparent environmental management system in China is likely to raise the competitiveness of companies with a good environmental performance.

For instance, German company Bosch presented documents to IPE showing that it has developed a database to track and compile the internal and external monitoring data of its dozen subsidiaries in China. The interaction with IPE has also led Bosch (China) Investment to commit to voluntarily disclose basic discharge and energy efficiency data by mid-April 2008.

The *Measures* have set a clear trend toward the expansion of corporate disclosure. However, the following issues have yet to be clarified:

- ❑ Key pollutants to be covered in the disclosure;
- ❑ The depth of detail demanded by the disclosure;
- ❑ How to ensure consistency in discharge data disclosure in order to facilitate the ranking of polluters;
- ❑ How to ensure that data disclosed has been recently updated; and
- ❑ How to check the accuracy of the data disclosed by non-compliant companies.

Consumer purchasing power

Another evolving trend that deserves attention is the growing recognition among Chinese consumers of their capacity to affect corporate behaviour through purchasing power.

Consumer purchasing power has been tapped in Western countries to demand accountability from companies. International NGOs like Greenpeace have extended several high-profile campaigns to China since 2004 and some have led to boycott action. (See case study 17.)

Green Choice Initiative

China's local NGOs are now trying to tap consumer purchasing power to pressure polluters, although they are less aggressive and more cautious in how they position the campaign. For instance, when 21 local NGOs launched an awareness raising campaign among consumers of goods produced with polluting manufacturing processes, the NGOs were careful to frame their initiative as supportive of the government's pollution control work. And that the goal was to construct a fair and equitable marketplace in which environmentally sound firms would remain competitive and financially successful. Their tactics may be quite different from those of Greenpeace. For instance, in the case of Green Choice Initiative, the local groups only used government-sourced data (see case study 18).

Case study 17: Zhejiang Hotels Association against Asia Pulp and Paper (APP)

On 18 November 2004, Zhejiang Hotel Association sent a notice to all 417 of its member hotels:

'According to the Investigative Report on APP's Forest Destruction in Yunnan by Greenpeace, APP-China's large-scale logging of natural forests to plant eucalypts in Yunnan Province (which is against the Forest Law and "The National Natural Forest Protection Project") - will bring about severe damage to the local ecological environment and upset the natural balance... All member hotels will need to boycott all APP products in order to qualify for "Green Hotel" status as conferred by the Association and the Zhejiang Tourist Bureau. The boycott will continue until APP China makes a practical promise of its environmental protection.'

With the letter, the association circulated both the Greenpeace report and a list of APP products to be avoided, ranging from office stationery to toilet paper. Over 30 hotels from Hangzhou, Ningbo, Shaoxing, Wenzhou, Jiaxing, Huzhou and Jinhua responded as soon as the notice was released. APP filed a lawsuit against the association on 30 November, but then withdrew it on 22 February 2005, on the eve of the hearing.

This was the first, and so far the only, boycott in mainland China to have been sponsored by an industrial association in support of environmental protection. The impact on the bottom line may be limited but the effect on corporate brand is quite significant considering the extensive media coverage of the boycott.

Consumer action: Strong lever for environmental protection

Chinese NGOs have decided to embark on consumer campaigns not only because this allows them to apply market pressure on polluting enterprises, but also because several key conditions in China have been deemed ripe to support consumer-based actions:

- ❑ The Chinese market economy means consumers have a multitude of name brand options for most products in the marketplace, granting them the power of choice.
- ❑ The environmental protection arm of the government has in recent years intensified efforts to disclose corporate environmental information.
- ❑ There is growing public concern over pollution and environmental damage⁴¹. Increasingly the public has expressed a desire to help with pollution control.

But obviously there are constraints to implementing consumer campaigns in China, such as the following:

- ❑ It is much tougher to urge consumers to boycott goods that only have indirect impacts in the manufacturing process. This refers to non-compliant companies that supply merely a part or ingredient of the consumer good, and not the good itself.
- ❑ There remain gaps and inconsistencies in the data on polluting enterprises.
- ❑ A lack of user-friendly tools to assist consumers in making green choices.

Fifty companies respond to consumer pressure

Despite these obstacles, the Green Choice Initiative (GCI) has yielded positive results while still in its early stages. Following the launch of GCI⁴², some 50 companies identified in violation of water-quality standards approached environmental groups to resolve the issues. Most explained what went wrong and how they tried to fix the problem, and looked for ways to solve the problem. Some have made major renovations to their wastewater systems; others have rectified their flawed environmental-management systems.

Case study 18: Green Choice Initiative

On World Water Day 2007, IPE and 20 other environmental groups in China launched the Green Choice Initiative (GCI), calling individuals to integrate consideration of an enterprise’s environmental performance into their daily consumer decision-making process. The NGOs asked consumers to review with caution the goods produced by polluting enterprises.

The NGOs pointed out that a lack of consumer reaction sends companies a distorted market signal, implicitly encouraging them to lower their environmental standards and validating their attempts to gain market share by shirking their environmental-protection responsibilities.

NGOs hope that consumers will carefully consider the list of over 9,000 enterprises in violation of discharge

standards that the China Water Pollution Map has compiled based upon government sources. The list includes large-scale industrial players and multinational corporations that have popular brand names and enjoy large market shares.

‘The next time you are confronted with a consumer decision, we hope that you will be able to identify the goods produced by these violating firms and exercise your Green Choice, thereby sending a clear market signal to companies. Your choices can create tangible market pressure, forcing pollution violators to contemplate the damaging effects of illegal discharges on their brand reputation and market share, and consequently inducing such companies to comply with discharge standards,’ said the NGOs in their GCI Statement.

⁴¹ Chinese Public Environmental Protection Livelihood Index (2006), China Environmental Culture Promotion Association, 15 January 2007

⁴² IPE plans to work with major local and international environmental groups to turn the GCI into a nationwide consumer campaign

Audits to check status

As of January 2008, eight companies on IPE's non-compliant list have undergone third-party audits. Three records have been removed, and in the other five cases, companies are taking further corrective actions. In some cases, the companies spent substantial sums to expand pollution-control capacities. Other companies worked out better workflows with the auditing firm, which resulted in substantial decreases in water use and wastewater discharge.

The result has prompted one company to hire the audit firm to audit four other plants (which are not on IPE's list) so as to identify environmental risks. In this case NGOs are invited to supervise the process.

Non-compliant companies have several options when attempting to regain public trust:

- ❑ *Provide feedback on the offending issue, which will be posted alongside the record of violation.*
- ❑ *Provide follow-up government monitoring data, to be posted alongside the record of violation.*
- ❑ *Remove the pollution record from IPE's list by agreeing to a third-party audit to ensure the offending company has adequate environmental-management systems and sufficient engineering capacity to treat effluent.*

NGOs turn their sights on big-box retailers

To stem the pollution tide, NGOs involved in the Green Choice Initiative recognised early on the need to focus not only on single company violators but also on big-box retailers and large-scale industries - challenging them to review their supply-chain-management practices.

To aid in this, IPE developed a search engine, which allows users to verify if a company has recorded environmental violations. Such a tool is designed for the use of multinational corporations (MNCs) to help them keep track of the environmental performances of their extensive supply chains, and avoid the backlash when one of their suppliers are exposed for violating environmental regulations.

Case study 19: 'The Panasonic Model'

In June 2006, Panasonic Battery (Shanghai) was listed by Shanghai EPB for exceeding discharge standards in October 2005. IPE recorded the violation on its China Water Pollution Map website.

On 8 March 2007, a management team from Panasonic visited IPE's office in Beijing and expressed its willingness to find a solution. However, in order to remove the record from its list of non-compliant companies, IPE required that the company undergo a strict third-party audit.

On 2 April 2007, Panasonic commissioned Shanghai Research Academy of Environmental Sciences (SHRAES) to perform the third-party audit. The auditing report revealed that actions had been taken to prevent similar violations from reoccurring, and the wastewater management level was acceptable after initial corrective action. But IPE raised the issue that the battery plate cleaning effluent should not be treated in the residential sewage treatment facilities. Panasonic confirmed

that it planned to solve the issue in the ongoing construction of an extra wastewater facility.

On 29 June 2007, representatives from IPE and Shanghai Green Oasis Ecological Protection Center, as well as auditors from the SHRAES, were invited by Panasonic to check and inspect the second renovation. IPE drafted a report describing the whole process and shared it with 20 other NGOs that had signed on the Green Choice Initiative. No NGOs raised questions during the seven-day reviewing period and the record of violation was removed from the front of the China Water Pollution Map website.

As the first firm to accept and pass a third-party audit, Panasonic Battery (Shanghai) was credited by NGOs for its courage in setting a good example for local and multinational companies. When another company on the list finally decided to accept a third-party audit after months of hesitation, it wrote to IPE that 'we want to follow the Panasonic model.'

Fined for violation

As an example, when the Dongguan Fuan Textile, one of the largest knit cotton manufacturers in the world, was exposed for being a bad water polluter (see case study 11), most of Fuan's US client companies did not provide evidence to the *Wall Street Journal* that they monitored the Fuan plant for environmental violations prior to the government crackdown⁴³. This is despite the fact that IPE's China water pollution map carried government data showing that Dongguan Fuan Textile was fined by the government repeatedly for violating emission standards.

Greening of the supply chain

In the "Green Choice Initiative" (GCI) launched by 21 environmental groups in China in 2007, it was proposed 'that big-box retailers and large-scale industry take the initiative to strengthen their supply-chain management practices by comparing supplier lists with the lists of polluters and conducting strict audits on suppliers that violated standards. These enterprises that truly adopt green supply-chain management, ensuring clean processes from production to market, merit the confidence and support of environmentally-minded consumers.'

Although most companies have yet to conduct vigorous Environmental Health and Safety management with their local suppliers, some of the most proactive companies have started taking actions using the pollution map database.

Case study 20: GE tackles local suppliers

IPE informed GE in January 2008 that a local company on the list of violators claimed itself to be a GE supplier. GE made a site visit the next week.

After GE presented Shanghai EPB's enforcement records posted on the China Water Pollution Map, the company finally turned up the relevant

monitoring reports, which showed that it had been found violating wastewater standards in 2005, 2006 and 2007.

Following its stringent supply chain management policy, GE gave this supplier 60 days to fix its discharge problem.

⁴³ *Wall Street Journal*, 'Ravaged Rivers, China Pays Steep Price As Textile Exports Boom, Suppliers to US Stores Accused of Dumping Dyes To Slash Their Costs', By Jane Spencer, August 22, 2007; Page A1

Conclusions and recommendations

Government determined to arrest problems

To prevent China's environmental problems from spiralling out of control the Chinese government is determined to arrest this situation by stepping up legislation, enforcement and information disclosure - with the public as its key partner. Beijing has taken significant measures to keep the public engaged in enforcing environmental measures through:

- ❑ Passing and strengthening the Environmental Impact Assessment Law;
- ❑ Increasing transparency through specific laws related to regulatory violations, and through the Information Disclosure Law to be implemented in May 2008;
- ❑ Supporting public and NGO activities to disseminate information about the environment and pollution through websites and public action; and
- ❑ Increasingly engaging the media to help enforce and shame polluting companies.

Changes are inevitable

Although the changes are slow in being integrated into China's regulatory system, these changes are inevitable. China's environmental sector is undergoing a transition period, during which environmental-governance structures are playing catch-up with the country's market economy.

Also inevitable are the potential costs to polluting entities if the following conditions or combination of factors are apparent:

- ❑ The regulatory environment changes in ways that affect their investments;
- ❑ Enforcement of new and old regulations is strengthened;
- ❑ There is an increasing demand for information disclosure;
- ❑ More news regarding non-compliance is made available through both official and unofficial channels;
- ❑ There are material consequences for violations, such as banks refusing loans to repeat violators, the closure of plants and severe damage to a company's reputation that negatively effects the business or that threatens a company's ability to get government approvals;
- ❑ Consumers are paying greater attention, as well as taking action to safeguard the environment; or
- ❑ A company's proposed project could be denied a permit to build because the company fails public consultation requirements.

Shifting attitudes towards environmental compliance have obvious ramifications for companies and investors. The aforementioned changes to environmental management, alongside vigorous public participation in the decision-making process, will undoubtedly extend the timeline for construction of projects and reduce speed to market and thus may affect earnings for state operators and international companies.

Critical for investors to perform a risk assessment

These changes that are unfolding make it critical for investors to perform a risk assessment to manage the increasingly transparent and stricter regulatory environment, as well as the potential risks associated with growing consumer awareness and actions.

What should investors do?

The authors recommend the following actions for investors:

- 1) Perform a risk assessment of portfolio holdings where environmental, social and governance (ESG) issues will gain profile due to new and easily accessible information sources;
- 2) Ask the largest holdings about regulatory violations over the past 12 months. Large fines are typically reported but companies are under no obligation to disclose this information to investors unless they judge it to be a material event that has the potential to influence share prices;
- 3) Conduct more rigorous follow up when a pattern of regulatory violations emerges, regardless of size; and
- 4) Conduct a regular news search on emerging ESG issues associated with the largest Chinese equity holdings.

Appendix 1: Violators of water-quality standards

Examples of multinational companies in violation of water-quality standards from 2005-07

Year	English Name	Chinese Name
2006	A. O. Smith (China) Water Heater	艾欧史密斯 (中国) 热水器
2005	Anda Bridgestone Natural Rubber (Yunnan)	安达普利司通天然橡胶 (云南) 有限公司
2007	Bozzetto (Ningbo) Chemicals	卜赛特 (宁波) 化工有限公司
2005	Cargill Alking Bioengineering (Wuhan)	嘉吉烯王生物工程 (武汉) 有限公司
2007	Cargill Bioengineering (Zibo)	嘉吉生物工程 (淄博) 有限公司
2005	Changchun Pepsi	长春百事可乐公司
2007	Danisco Sweeteners (Anyang)	丹尼斯克甜味剂(安阳)有限公司
2005	Degussa Rexim (Nanning) Pharmaceutical	南宁德国赛美诗药业有限公司
2006 & 2007	Degussa-AJ (Shanghai) Initiators	爱建德固赛 (上海) 引发剂有限公司
2006	DuPont Agricultural Chemicals, Shanghai	上海杜邦农化有限公司
2005	Fuzhou Pepsi	福州百事可乐有限公司
2006	Guangdong Whirlpool Electrical Appliances	顺德惠而浦家电制品有限公司
2006	Guangzhou Pepsi	百事可乐饮料公司
2006	Hainan Redbull Beverage	海南红牛饮料有限公司
2007	Harbin Mauri Yeast	哈尔滨市马利酵母有限公司
2007	Hitachi Construction Machinery (China)	日立建机 (中国) 有限公司
2007	Jiangyin Hanil Iron & Steel	江阴韩一钢铁有限公司
2005	Nanjing Pepsi	南京百事可乐饮料有限公司
2005	Ningbo Asia Pulp & Paper	宁波亚洲浆纸业有限公司
2006	Ningbo LG Yongxing Chemical	宁波乐金 (LG) 甬兴化工有限公司
2007	Nivea (Shanghai)	妮维雅 (上海) 有限公司
2006	Noell Crane Systems (China)	诺尔起重设备 (中国) 有限公司
2006	Qingdao Veolia Water Operation	青岛威立雅水务运营有限公司
2006	Samsung Heavy Industries (Ningbo)	三星重工业(宁波)有限公司
2006	San Miguel (Guangdong) Brewery	生力 (广东) 啤酒有限公司
2005	Shanghai Ciba Gao-Qiao Chemical	上海汽巴高桥化学有限公司
2005 & 2006	Shanghai Kerry Oils & Grains Industrial	上海嘉里粮油工业有限公司
2007	Shanghai Spark Sino French Water Supply Company	上海化学工业区中法水务发展有限公司
2005	Shanghai Whirlpool Electrical Appliances	上海惠而浦家用电器有限公司
2006	Shanghai ZF Zhongding NVH	上海采埃孚中鼎橡胶金属技术有限公司
2006	Shining Gold Foodstuffs (Ningbo)	金光食品 (宁波) 有限公司
2005	Sichuan Chuanhua Ajinomoto	川化味之素有限公司
2005	Suzhou Samsung Electronics	苏州三星电子有限公司
2007	Unionsteel (China)	联合钢铁 (中国) 有限公司
2006	Wuxi Sharp Electronic Components (WSEC)	无锡夏普电子元器件有限公司
2006	Zhejiang Ruicheng Effect Pigment	浙江瑞成珠光颜料有限公司
2006	Zhuzhou Yamaha Absorber	株洲雅马哈减震器公司

Note: The companies were cited for violations in their Chinese names. The English names of the companies are for reference only. Source: IPE

Appendix 2: History of environmental regulations

Key public participation regulations in project lifecycle

Corporate lifecycle phase	Key public participation regulation	Description
Project design	<i>PRC Environment Impacts Assessment Law</i>	<ul style="list-style-type: none"> □ The EIA Law is the legal basis through which all Chinese environmental administrators make informed judgments on economic developments and construction projects. The EIA law prescribes the method, procedure and validity of public opinion and represents the first law that requires public participation in the Environmental Impact Assessment.
	<i>Interim Measures for Public Participation in the Environmental Impact Assessment</i>	<ul style="list-style-type: none"> □ The Interim Measures for Public Participation in the Environmental Impact Assessment is the first environmental department regulation on public participation in China. As an assistant regulation to the EIA Law, the Interim Measures detail and specify the various aspects of public participation, including: participation rights, forms and due procedures, and legal validity.
Construction and trial operation	<i>No specific regulations</i>	
Operation	<i>PRC Cleaner Production Promotion Law</i>	<ul style="list-style-type: none"> □ The Cleaner Production Promotion Law is the first law to promote cleaner production (by saving energy and reducing pollutant discharge) in all industries. The law places great emphasis on public participation and supervision, and requires the media to participate in disclosing the environmental information of enterprises.
	<i>Measures for the Disclosure of Environmental Information (for Trial Implementation)⁴⁴</i>	<ul style="list-style-type: none"> □ According to this regulation, the public can inquire environmental information from not only governmental agencies, but also the enterprises. A whole set of clauses of the measures is likely to enhance the public's influence on enterprises. Among the 17 aspects of environmental information that are required to be disclosed, there are five key aspects directly relevant to enterprises.
Closure	<i>No specific regulations</i>	
Others ⁴⁵	<i>Interim Measures on Hearing the Administrative Licenses in Respect to Environmental Protection</i>	<ul style="list-style-type: none"> □ The Interim Measures specify the scope, participation, chairperson and procedures of the environmental hearing. It allows the environmental administrative authorities to hold a public hearing when they consider it is necessary. Specially, the measures also list several types of construction projects that may seriously affect local residents' lives and allows the environmental administration to hold a hearing to find out the local residents' opinions before approving of the EIA reports.

Source: WWF, IPE

⁴⁴ This regulation will be enforced on 1 May 2008

⁴⁵ 'Others' indicates that the applicable scope of the referred regulation is not limited to only a single phase of the corporate lifecycle process



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