Institute of Public and Environmental Affairs

*International Innovation* speaks to IPE Director Ma Jun about the ways in which the Institute is working to stem the tide of pollution in China through increased environmental transparency and accountability.
Growing up in Beijing, what major environmental changes have you witnessed?

The city has changed dramatically in terms of its population and economy, both of which have vastly expanded over the past few decades. The city has enlarged so much that it has become dangerously overrun with people, motor vehicles and factories. There used to be vast wetlands and croplands, and the air quality was much better. The canals, rivers and lakes used to be much larger and filled with fish – the canal that I learned to swim in, for example, is no longer useable.

Historically, the most common method of transport used to be bicycle, but now there are 5.3 million cars and vehicles. As a young boy, I lived next to one of the key motorways in western Beijing; there would be just one car every few minutes and I could easily walk into the middle of the road, but now it is often jammed with traffic.

How has your position as Director of the Institute of Public and Environmental Affairs (IPE) enabled you to perform the role of environmental watchdog?

I set up IPE because, after years of researching environmental management, I realised that many areas still required protection. Environmental litigation is very complicated and, as a result, certain companies are under no pressure to sort out their pollution issues. Often, the local government is behind this as they can interfere with environmental enforcement. Such interference has profound effects across Beijing. These issues cannot be resolved overnight or individually, which is why public participation is vital.

IPE’s first project was to create a national database called the China Pollution Map. We began examining air pollution and soon moved on to hazardous waste. In terms of air quality data, we created a violation record to examine who was responsible for all this pollution.

How have your skills and experiences prepared you for this position?

I began my career by working as a researcher for the media. I learned how to obtain and utilise knowledge from a broad range of topics, experimented with different writing skills and eventually put my research into a book called *China’s Water Crisis*. I then worked for an internet company and discovered how powerful the internet is as a communication platform, how quickly it is developing and how to construct databases.

Following this, I joined an environmental consortium and became familiar with tools such as environmental health and safety management systems and the supply chain management system – particularly auditing tools on the supply chains of major corporations. Environmental work can be very technical, so these skills have greatly supported our work at IPE.

In terms of my academic background, I spent a year at Yale University as a visiting scholar carrying out a fellowship. I studied environmental management both in the West and in China, which further consolidated my belief that there are many problems regarding environmental governance and transparency.

Which environmental issues are you currently looking at?

Water and air pollution are the two most prominent challenges in China. Besides that, we are looking into the management of hazardous waste, which not only causes problems to our water supplies, but has a major impact on soil.
A new report has revealed plans to revise and strengthen China's 1989 Environmental Law, aiming to implement a range of green regulations and enforce environmental taxes and fines on companies most responsible for China's ongoing pollution crisis. The report, revealed during the country's annual parliamentary session, comes weeks after the government announced its plans to empower the Environmental Ministry to impose environmental regulations, as well as a suite of multi-billion dollar funding commitments to develop innovative technologies that reduce and eradicate air and water pollution, and the initiation of seven Ministry to impose environmental regulations, as well as a suite of multi-billion dollar funding commitments to companies most responsible for China's ongoing pollution crisis. The report, revealed during the country's annual parliamentary session, comes weeks after the government announced its plans to empower the Environmental Ministry to impose environmental regulations, as well as a suite of multi-billion dollar funding commitments to develop innovative technologies that reduce and eradicate air and water pollution, and the initiation of seven key provinces monitoring data, and through the collection and analysis of these, discovered that some polluters were breaking the discharge standards almost hourly.

Could you highlight some of the projects underway at IPE to tackle environmental and health challenges?

We are currently developing a mobile phone app which allows users to check both the real-time air quality data and who is breaking the standards in a particular city. It has been challenging as we have to collect data from nearly 30 different platforms, in various locations, with thousands of polluters in China, and compile it in a single place.

We also have a programme called Take a Picture that we have developed

Mapping pollution in China

IPE has already gained wide recognition for its publicly available China Water Pollution Map and China Air Pollution Map, pollution being a serious concern in China that impacts on citizen health, the economy and the environment. These online databases consist of government-sourced information on pollution, which allow individuals, corporations, media outlets and other key players to access and monitor air and water pollution activity in China. The air and water pollution website provides a forum for interested parties to discuss air and water quality in their regions, and has already exposed over 90,000 violations by non-compliant companies.

What have been the Institute’s greatest successes thus far?

Many media outlets have dubbed us the first organisation to show public interest in pollution control in China. We consider our pollution map and database a great success. Initially, we started out with three staff members, now we employ 16 people, and more than 1,000 polluting factories turn to us to resolve their pollution problems. That said, we still have a lot to do, as there are over 100,000 polluters to uncover. For this, we desperately need to scale up our work.

Declaring war on pollution

Following the unprecedented economic expansion and industrialisation of the last few decades, China now faces the challenge of dealing with the environmental problems that have arisen from these activities. As the most populous nation on Earth, the cumulative requirements of its enormous population are great, and many natural resources have been harvested indiscriminately. The tide is turning, however, with the Chinese Government increasingly turning its attention to these issues. A new report has revealed plans to revise and strengthen China’s 1989 Environmental Law, aiming to implement a range of green regulations and enforce environmental taxes and fines on companies most responsible for China’s ongoing pollution crisis. The report, revealed during the country’s annual parliamentary session, comes weeks after the government announced its plans to empower the Environmental Ministry to impose environmental regulations, as well as a suite of multi-billion dollar funding commitments to develop innovative technologies that reduce and eradicate air and water pollution, and the initiation of seven regional carbon markets designed to curb greenhouse gas emissions.

The government's report confirmed some shocking facts: for example, 71 out of 74 major cities were failing to meet pollution standards – Haikou, Lhasa, and Zhoushan were the only cities to surpass the quality regulations. Premier Li Keqiang responded to the latest revelations regarding poor air quality in many major cities by reasserting their desire to ‘declare war on pollution’. With continued efforts in place, such as the introduction of a smog-dispersing aircraft to lower costs associated with reducing emissions, China is making waves in reducing its air and water pollution levels.

www.ipe.org.cn/pollution
with our partners, whereby users can locate a polluter, take a picture of the location using their smartphone and upload it to our social media site – the Chinese version of Twitter. We then put these locations into a digital map. We have already made some preparation for a real-time version of this app over the last couple of years.

**Does IPE collaborate at an international level? Specifically, are you working on any initiatives with Western organisations?**

We have some in-depth collaboration with overseas partners. For instance, we are working with the Natural Resources Defense Council (NRDC) on key projects such as the Pollution Information Transparency Index (PITI) and the Corporate Information Transparency Index (CITI), which can be used to assess the performance of major brands, globally and locally, in their supply chain management.

We are also working with other partners in the fields of energy and air quality and with the World Resources Institute (WRI) on a joint research programme. In addition to this, several foreign foundations have supported IPE’s work, including the Rockefeller Brothers Fund and Oak Foundation.

**What are the Institute’s plans for the foreseeable future? Do you have any exciting projects in the pipeline?**

Over the next five years, we will continue to upgrade the pollution map database to ensure it can deal with the increase of incoming data on water and solid waste and information on soil pollution. It will not just be available on the computer, but on smartphones as well.

Another major component of our work is through GCA, where we hope to expand into many more industries – at the moment we are working on the leather industry.

We have also initiated a platform to leverage a green stock market and have created a sub-site which allows investors to access pollution records of more than 950 companies operating in China. I hope this will motivate them to make smarter investments and avoid businesses with highly polluting industries. Finally, IPE has a green banking project to help identify banks that provide loans to some of the worst polluting companies and factories, and which attempts to encourage them to use their credit to motivate change.

**In terms of environmental management, what are your hopes for China’s future?**

In China we have serious challenges that matter not just to this generation, but to generations to come. We still have gaps in our government, weak enforcement and a lack of environmental litigation, but we are making progress. There have been some massive achievements in public awareness promotion, the extension of government transparency and increased NGO activities. All this has created opportunities for stakeholders to work together in a new, open, transparent and participatory way. We hope this will help to address China’s serious environmental problems, and benefit the rest of the world.