# Report on Environmental Health in the Pearl River Delta

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German Asia Foundation

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**chinadialogue**
**London Office**
Suite 306 Grayston Centre
28 Charles Square,
London, N1 6HT, UK

**German Asia Foundation**
**Asienstiftung**
im Asienhaus
Bullmannaue 11
D-45327 Essen

**Beijing Office**
Rm.3-717, Core Plaza, No.1
Shanyuan St.,
Room 3-717
Core Plaza
1 Shanyuan Street
Haidian District
Beijing, China, 100080

**San Francisco Office**
USF Center for the Pacific Rim
2130 Fulton St, LM 280
San Francisco, CA 94117-1080

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# Content

# Preface

In Europe and the United States in recent months there has been a public debate about working conditions at factories in south China – especially since the string of suicides at the Taiwanese-owned Foxconn plant. Many NGOs are conducting campaigns and advocacy work to raise awareness about such issues, include health effects on workers, and to influence the behaviour of individual and institutional consumers.

However, less attention has been devoted to the impact of the industrialisation process on the wider environment and on living conditions outside the factories. This study by *chinadialogue* may help to fill this gap.

China's rapid industrialisation and the severe environmental contamination that it has created pose serious risks to public health. That much is understood by many people in the fields of academia, medicine and government – not to mention the media and the public – and the issue has been discussed since at least 2004, when the first media reports about "cancer villages" related to industrial pollution caused widespread alarm.

A recent study by the Chinese Academy of Engineering and the country's Ministry of Environmental Protection said that 320 million people in rural China have no access to safe drinking water that 190 million drink water that contains "excessive levels of hazardous substances." The report also linked increased cancer rates with pollution, saying: "In rural areas, the continuous increase in prevalence and the death rate from malignant tumors in the digestive system, such as liver and stomach cancer, is closely linked with environmental pollution."

In November 2007, the government published its first official document on environment and health, the *National Environment and Health Action Plan* (2007–2015). The following year, China introduced its first transparency legislation intended to secure the public's right to access environmental information.

However, reporting about these important issues still poses a great number of challenges. Many feel that media reports on these issues still lack detail and accuracy; that information about these topics remains inadequate in China; and that access to data is still difficult to obtain.

Recognising this, *chinadialogue* decided to explore the information environment surrounding pollution and health with a case study focusing on a single city. This scoping exercise, conducted in January 2010 with support from the Rockefeller Brothers Fund, sent a small team of reporters and researchers to Dongguan, in southern China's heavily industrialised Pearl River Delta, to

report on residents' health problems and the possible environmental causes. Other researchers tried to conduct background interviews with experts and discover scientific data or other information about the situation.

The final report covers: the background to Dongguan's environment and health problems; water pollution and health in the city; air pollution and health; soil pollution and food security; occupational health; environmental litigation; a comparative case in Shaoguan, also in Guangdong province; and the policy-making process on environment and health. Zhong Weining and Ke Shen undertook the field-trip to Dongguan. Meng Si and Huo Weiya collected data. Zhong Weining and Li Hujun wrote the first draft; Li Hujun and Yi Shui wrote the final version. Sun Xiaohua and Xie Laihui translated the report into English.

Despite the many newsworthy stories to be investigated in Dongguan, the team found many difficulties faced journalists and researchers attempting to report the environment and health situation. Very few officials or academic experts would accept *chinadialogue*'s interview requests; the local environmental protection bureau refused an interview. Academics that did speak to *chinadialogue* were prevented from sharing relevant data with the researchers. Even the proceedings of a public academic conference on environment and health were said to be confidential.

More than a year on, the situation has changed little. There continue to be positive examples of regulation on environment and health at a senior government level: for instance, China's 12th Five-Year Plan (2011–15) includes policies to improve risk assessment, prevention and treatment of heavy-metal contamination. But public supervision is still constrained in China and the right to know is under threat. In July 2010, when the company Zijin Mining caused a toxic spill in Fujian province, southeast China – killing thousands of tonnes of fish – it took nine days for the story to come out, as the local government and even the local environmental protection bureau maintained a news blackout.

Therefore, this vivid and detailed account of reporting the environment and health in southern China may help readers to better understand the challenges and opportunities for reporters, activists, academics, funders and policy-makers working in an important field.

– *Sam Geall*, Deputy Editor, chinadialogue, June 2011
– *Klaus Fritsche*, Managing Director, German Asia Foundation, June 2011

# Part one: Environment and health in Dongguan

## I. Background

The city of Dongguan lies between Guangzhou and Hong Kong. It has the highest density of industries in the Pearl River Delta and its factories attract a large migrant workforce from other parts of the country. Statistics show that the city has a permanent population of about 1.75 million, with a migrant population as high as 5 million. In 2008, Dongguan had a GDP of 370 billion yuan and its export volume reached 447.2 billion yuan (US$65.5 billion), of which joint venture exports accounted for nearly 60 %.

Dongguan's rapid economic growth has brought serious health problems to the city, which make it representative not only of cities in Pearl River Delta, but also of others elsewhere in China.

Professor Huang Desheng of the Environmental Economics and Policy Study Group at Peking University found, in a study he is leading on the impacts of PM10 on human health and the economy in the Pearl River Delta, that airborne particulate pollution has had a severe negative influence on people's health, with the three cities of Guangzhou, Foshan and Dongguan worst affected. He estimates that total economic losses from air pollution exceed 9 billion yuan.

Nine of the cities in the delta, including Dongguan, suffer severe acid rain. In 2008, the average pH of rainfall in Dongguan was 4.83, which is classified as acid rain (normal rainfall is pH 5.3). The frequency of acid rain that year was 6 % higher than the previous year.

The water of the Dong River, which runs east to west through Dongguan, is a relatively good quality Grade II, according to official figures. (In Chinese water pollution classifications, Grade I is the highest quality and Grade V, the most polluted, is unsuitable even for agriculture.) Dongguan's canal, however, is not in such good condition. The water of the 103-kilometre-long canal, constructed in the 1960s, was found in 2008 to be Grade V.

The Dongguan government, the Municipal Health Bureau and the Disease Control Centre do not publish statistics on chronic diseases on their websites, nor did they respond to China Dialogue's requests for statistics. From information available through other research, however, it is clear that Dongguan's residents are facing worrying health problems.

In June 2006, for instance, the journal *Research on Cancer Prevention and Treatment* published a paper, jointly written by researchers in Dongguan Peo-

ple's Hospital and Sun Yat-sen University's Donghua Subsidiary Hospital. According to the paper, between January 2001 and October 2005, the two biggest hospitals in Dongguan carried out 6,242 breast tumour resections, of which 523 were found to be malignant. The incidence of tumours being found to be malignant increased from 12 % to 26 % over the period.

In March 2009, *Dongguan Daily* quoted an official from the Dongguan Health Bureau, as saying that every year some 75,000 outpatients in the city receive check-ups for tumours, of whom up to 20,000 are diagnosed with malignant tumours. "Hospital bed shortages have plagued the local health bureau," the official said. To deal with the problem, the city plans to build a special cancer hospital.

In other regions in China, cancer rates and deaths are higher, but further investigation is needed into the connections between cancer and environmental pollution.

The Ministry of Health's *Report on the Third National Review of Sample Investigations of Causes of Death*, published in 2008, reveals that deaths from cancer in the cities of Sihui and Zhongshan, in Guangdong province, between 2004 and 2005 were respectively 8.95 times and 6.49 times the national average. The sample investigation in Guangdong province covered the Yuexiu district of Guangzhou city, Nanxiong city, Futian district in Shenzhen city, Wuhua county, Wengyuan County, Shanwei city downtown and Yuncheng district in Yunfu city. Dongguan was excluded.

## II. Water pollution and health in Dongguan

There have been attempts to address the deterioration of water quality in the Dongguan canal. Song Qianwu, from the Chinese Research Academy of Environmental Sciences told China Dialogue that, in 2007, Dongguan municipal government decided to spend more than 10 billion yuan on building 35 wastewater treatment plants, of which 25 have now been completed. The rest are planned for completion soon.

Song said that wastewater treatment plants on the upper reaches of canal had begun to work from February 2008, and water quality in the canal had improved to Grade IV from Grade V. The improvement has been supported by the economic slowdown that forced some factories to close down, leading to less pollution (and fewer people, since there were fewer jobs for migrant workers).

However, the operation of the wastewater treatment plants alone cannot make the canal clean, according to Song, who said 10 billion to 15 billion yuan are still required to complete projects to intercept pollution, restore water quality and clean the sludge before the canal water body is healthy.

China Dialogue believes the operation of the wastewater pollution plants needs to be monitored and the correct treatment of sludge is important if it is not to pose a further threat to environment and health.

When the economy recovers from the recession and more migrant workers return to Dongguan, the canal and river will risk renewed pollution. In September 2009, the China Dialogue team visited Dongguan and discovered that some factories conceal their wastewater outlets in the grass on the Daojiao riverbank, pumping wastewater directly into the water.

A young man working in a factory nearby told China Dialogue that two years ago, Daojiao River was seriously polluted and is still malodorous today. He had not seen any obvious changes.

In the town of Zhongtang, more than 10 kilometres from Dongguan, there are also many paper and textile factories. One factory was pumping wastewater directly into a river in the town.

China has launched a major research programme to control and rectify water pollution with a budget of tens of billions of yuan. Song said the programme also includes a project to control pollution and clean up Dongguan's Dong River.

Meanwhile, drinking water security in rural areas in Dongguan is a problem. Zhang Yaqing, a member of the People's Political Consultative Conference in Dongguan, said the management and equipment of water plants in rural areas in Dongguan is too poor to ensure water quality.

Wei Fusheng, a member of Chinese Academy of Engineering and former chief engineer of the Environmental Monitoring Center of China, told China Dialogue that the government should ensure the security of drinking water and educate rural residents not to irrigate farmland with polluted water.

Wastewater treatment cannot be fixed overnight. Besides the traditional pollutants, it is harder to treat new types of water pollutants, such as heavy metals and some organic pollutants. Most importantly, the health of Dongguan residents has already been damaged, but there is no research about how bad the damage is and there are no media reports on the topic.

## III. Air pollution and health in Dongguan

The public report on air composition issued by Dongguan Meteorological Bureau showed that in 2007 Dongguan had 211 days of polluted haze, the largest number of heavy haze days since 1949. In 2008, the number of haze days was 146.

The 2008 report of the Hong Kong, Guangdong and Pearl River Delta regional air quality monitoring network, jointly issued by Guangdong Environmental Monitoring Center and Hong Kong Environmental Protection Depart-

ment, showed that in the Nancheng district of Dongguan, there were only 31 good air quality days in a year, the worst record in the Pearl River delta. The district has residential, commercial and industrial facilities together. Days with bad and very bad air quality could reach 162 days in a year.

However, current air quality monitoring does not include PM2.5, which has a significant effect on people's health.

In April 2008, the national newspaper *Southern Weekend* published a story, calling on all sectors of society to pay attention to the increasing number of polluted haze days in China, especially in the Pearl River delta. The paper reported that in 2007, Dongguan environmental protection departments had dealt with 3,864 complaints about air pollution. Most Dongguan residents probably had no idea that when Dongguan's economy ranked third in Guangdong province, its air quality was also the worst.

In the next five years, Guangdong plans to construct a number of air haze monitoring centres and work together with Guangdong Air Haze Pollution Alert Centers to set up a haze alert network among cities in Pearl River Delta.

Song Qianwu said the main reason for air pollution in the Pearl River Delta is the increasing number of cars, with industrial emissions as the second factor. A reporter with *Southern Metropolitan Daily* told China Dialogue that he had followed a case in which residents were complaining of severe industrial pollution from a chemical plant in Dongguan. The plant management, however, insisted that their emissions met official standards and the journalist was not able to verify their claims technically. We recommend that media should investigate whether the current industrial pollution emission standards are strict enough.

Pollutant emissions from auto exhausts also need attention. Researchers at Sun Yat-sen University's medical school are studying the influence of car exhausts on human health, especially on such targeted groups as taxi drivers, traffic police and students.

Some polluting plants had moved to Shaoguan city and other cities and towns. Song stresses, however, that such relocations need to be monitored because, although they might help improve Dongguan's air quality, they will pollute the cities that host the relocated plants. China Dialogue believes the media should follow the issue.

A systematic study of the influence of inhalable particles on people's health in cities on Pearl River Delta, including Dongguan, has been launched.

In October 2009, Li Hujun, a member of the China Dialogue reporting team, attended the annual meeting of the Environmental Medicine and Health Branch of the Chinese Society for Environmental Sciences. At the meeting, Peng Xiaowu, from the South China Institute of Environmental Sciences,

under the Ministry of Environmental Protection, said his research team was studying the influence of polluted haze on the respiratory system.

Between 2006 and 2008, the research team studied Guangzhou, Shenzhen, Dongguan and Zhaoqing. In each city, they picked two representative hospitals near the haze monitoring centre to study patients with respiratory diseases.

In addition, the research team also followed 800 primary school pupils in the four cities, studying the relationship between air pollution and health.

Data collected by the team, which has not yet been published, could be an important reference for such studies.

## IV. Soil pollution and food security in Dongguan

In April this year, a three-year research study of soil quality in Pearl River Delta released its first results. The research is carried out jointly by the Guangdong provincial government and the China Geological Survey under the Ministry of Land and Resources.

According to the preliminary research results, of more than 40,000 square kilometres of land in the Pearl River Delta economic zones, about 70 % qualifies as "good", corresponding to Grade I or Grade II of China's soil quality standard, and can thus be farmed. Most of the good land is located in the eastern and western parts of the delta, near such cities as Huizhou and Zhaoqing.

However, according to a report by the *Southern Metropolis Daily* newspaper, the official report did not make it clear which parts had been contaminated by heavy metals and how bad the pollution was, only saying that "some areas have been heavily polluted by heavy metals."

China Dialogue contacted the leader of the research team, Hong Wanfu, who is a researcher with Guangdong Institute of Eco-Environment and Soil Sciences, but he said he was not able to release the relevant data. Hong is under contract to the Guangdong provincial government, which, so far, has not released detailed research results.

China Dialogue was obliged to investigate through other papers. Zhou Yongzhang, for instance, a professor in the Earth Sciences Department of Sun Yat-sen University, published a paper in the December 2008 *Environmental Sciences Journal*, entitled "Multivariate Geostatistics and GIS-based Approach to Study the Spatial Distribution and Sources of Heavy Metals in Agricultural Soil in the Pearl River Delta, China".

The research indicated that concentrations of copper (Cu), zinc (Zn), nickel (Ni), and especially of lead (Pb), cadmium (Cd) and mercury (Hg), were beyond the soil background content in Guangdong province. Concentrations of cadmium and mercury were particularly high. About 30 % of soil examined had more mercury than the country's Grade II standard.

"The rapid industrialisation of Dongguan produced rapid heavy metal accumulation," the paper said.

There have been other findings on Dongguan's soil quality published over the last two years. Wu Pengju, a researcher with the Dongguan Technology University, leading a team that studied 46 land samples in six towns and districts in Dongguan, discovered heavy pollution of cadmium, zinc and copper in the soil, with about 60 % of the sample soils having a higher than standard contamination.

Mo Cehui from Jinan University also found out that in areas where vegetable production is concentrated, both soil and vegetables were contaminated with phthalic acid esters (PAEs), which are identified by the US Environmental Protection Agency as a threat to people's health (they are known to cause birth defects in rats). In nine vegetable production areas in eight towns and districts, irrigation water contained PAEs of 0.29–2.73 micrograms per litre, the soil had 0.24–1.71 micrograms of PAEs per kilogram and the vegetables contained between 0.41 to 7.98 micrograms per kilogram of PAEs. Among all the species of vegetable, lettuce (*Lactuca sativa*) had the highest content of PAEs.

So far, the media has not paid enough attention to these issues. PAEs are widely used in the plastic production industry in Dongguan. Yang Xu, a researcher with Huazhong Normal University is studying the influence on health of PAEs to provide scientific reference for China's policy-making.

According to Song Qianwu, farmers in the Pearl River Delta commonly use polluted water to irrigate vegetables, fruit and rice, because they believe that polluted water helps plants to grow better. They do not know that heavy metals in polluted water will not only damage food security, but also pollute the soil.

Wei Fusheng told China Dialogue that the Ministry of Environmental Protection is leading an investigation into national soil quality and that the results are expected to be released soon. The preliminary conclusion is that about 90 % of soil nationwide has not been polluted, but, in urban areas, land near smelting and chemical plants has been.

Song Qianwu also said that there are more than 180 waste landfills around Dongguan. Any waste landfill can pollute the environment and injure the health of nearby residents.

Although media reports currently pay attention to soil pollution and human health, most reports so far unfortunately lack strong scientific support. We recommend that media collaborate more closely with researchers on this important issue.

The media should also pay attention to the distribution of heavy metals and organic pollutants in food and its influence on health.

In the October 2008 issue of the *Chinese Journal of Health Laboratory Technology*, researchers from the Dongguan Center of Disease Control and Prevention reported that from 2004 to 2007, of 684 major food types, 3.3 % had more lead and 3.7 % more cadmium than standard. In addition, 30.5 % tested positive for pesticides with 12 % of food returning higher than permitted pesticide levels, and some fruits testing positive for excess artificial sweeteners.

## V. The occupational environment and health in Dongguan

The occupational environment in Dongguan has been a hot topic in the media at home and abroad.

In June 2009, *Southern Daily* reported that in more than 20 industries, including shoe-making, garment, toy and furniture production, workers had been confirmed to have occupational diseases. More than one million workers are in contact with poisonous or harmful materials every day at work. N-hexane poisoning, trichloroethylene poisoning, benzene poisoning and pneumoconiosis are the most frequent occupational diseases in Dongguan. In recent years, Dongguan has seen an increasing number of leukaemia patients because of benzene poisoning.

The newspaper also quoted Xiong Jun, an official from the Dongguan Center of Diseases Control and Prevention, as saying that raw material with benzene is still widely used in Dongguan. The center has confirmed about 30 cases of occupational diseases in 2008, of which about 30 % were because of benzene poisoning.

The newspaper, however, did not follow the story in depth and failed to contact patients in Dongguan.

Li Guilan, a researcher from the Institute for Occupational Health and Poison Control under the Chinese Center of Disease Control and Prevention, who worked on the relationship between leukaemia and benzene poisoning, said that the connection is difficult to prove.

Besides leukaemia, other conditions, such as respiratory diseases, congenital malformation and infertility also demand attention.

In random interviews conducted by China Dialogue near factories in Houjie town in Dongguan, a young man surnamed Huang said that he had been in Dongguan for nearly two years, labelling tyres in a tire factory. He has to use certain chemical glues, the composition of which he does not know, but which he said smelt very strong. The plant distributes facial masks to the workers, but few workers wear them.

In the Pearl River Delta, many Taiwanese-run plants have a closed management model and without prior approval it is very difficult to gain access to the factories to examine the working environment and interior air quality.

In a paper published by Hou Dafan and his group from Qingxi Hospital in Dongguan in *China Modern Medicine* magazine this year, Hou Dafan reported that they had examined the working environment in 153 factories and found many problems. The investigation was not systematic, but few institutes carry out systematic investigations into occupational diseases.

Wei Fusheng told China Dialogue that occupational diseases have to be diagnosed in state-designated hospitals and that prudence is required in drawing conclusions on the connection between occupational diseases and the working environment.

# Part two
# Litigation and policy

## I. Environmental litigation in China

Despite many efforts, China Dialogue has not yet discovered any case of litigation on environmental health in Dongguan.

Chen Min of the Guangdong Hua'an Joint Law Firm and Huang Yundong of the Guangdong Pacific Joint Law Firm, participated in legal training in 2007 organised by the Center for Legal Assistance to Pollution Victims in China (CLAPV) of China University of Political Science and Law (CUPL). They had been hoping to be more engaged in the prosecution of local environmental law suits, but they told China Dialogue that they have not received any cases since.

The two lawyers believe that the public lacks sufficient understanding of the impacts of environmental pollution on health. Chen Min, who once worked in a chemical plant, said that the adhesives widely used in some small factories, such as shoe-making factories, still contain too much benzene or ketone additives, but the workers, residents and consumers may be unaware.

Chen Min also said that the essential reason for the lack of environmental health-related litigation lies in a huge disparity between two contradictory forces; the public often lack awareness of the facts, and even if they have knowledge of the infringement, they fear they will be vulnerable during litigation.

The work of Professor Wang Canfa, of the China University of Political Science and Law, and his project teams on legal assistance in environmental cases, partly reflects the process of environmental litigation in China.

In 1998, Wang Canfa set up CLAPV on campus and opened telephone hotlines the next year. According to Liu Xiang, a member of the CLAPV staff, since 2003, the number of law suits on environmental issues has increased significantly. However, of the total 134 cases received by CLAPV, only 19 were successful. Of the rest, some are in progress and others have already been lost. The case with largest target value occurred in 2001 – that of 97 farmers from Shilianghe Town, Donghai County of Jiangsu province, who sued the Shandong Golden Yimeng Company and Linshu Chemical plant for pollution damages to a total value of 5.6 million yuan.

When talking about the litigation difficulties in environmental health related cases, Liu Xiang pointed out that: "When dealing with many of the cases, (the judges) did not relate them to pollution but talked about other

causes, so it is difficult to draw any conclusions. A further obstacle is that the costs of analysis after incidents are so high that ordinary people can't afford them. If nobody is willing to pay for the analysis, eventually nobody goes to collect the evidence, so the cases end up with no result."

## II. The case of Shangba village in Shaoguan

Shangba village, in Wengyuan county, Shaoguan city in Guangdong province, is probably the most famous "cancer village" in Guangdong. Since 2004, the environmental health issues in this village have become a focus of media attention at home and abroad.

Shangba village is located downstream from the Dabaoshan mine. There are large reserves of iron, copper, lead, zinc and other metals in Dabaoshan, where the province-owned Dabaoshan Mine has been mining on a large scale since it was set up in the early 1960s.

Media reports have differed on the cancer death toll in Shangba. According to the *Southern Metropolitan Daily* in November 2005, 250 of the village's more than 3,000 inhabitants have died from cancer since 1987, while the *Southern Rural News* claimed in November 2008 that there have been more than 400 cancer deaths since 1987.

In any case, the high incidence of cancer in Shangba has attracted widespread concern. The villagers suspect that all of the deaths could be related to mining-related pollution. The *Southern Rural News* in October 2009 described pollution over a wide area caused by Dabaoshan mine: "a huge yellowish-brown reservoir lies before your eyes. It is a toxic lake with cadmium content more than 16 times the standard, and the 'poison water' flows continuously downstream and seriously pollutes the soil in lower reaches".

In the Dabaoshan mining area, Shangba village was not the only victim of heavy metals. After intensive domestic and foreign media reporting on the environmental health issues in this village, the local government adopted some measures. In January 2006, for example, the local government and the Dabaoshan Mining Company jointly invested more than 13 million yuan in building the Shangba reservoir to collect rain and mountain spring water. Villagers do not drink water from the polluted Hengshi River, but since there is no covering for the village's open drains, on rainy days, mud flows directly into the drainage system. The villagers are forced to give up the muddy water and return to water from the wells contaminated with heavy metals.

An anonymous soil expert told the *Southern Rural News* that, in fact, even in the Shangba village with its serious soil contamination, soil pollution has not been given due attention. Due to poverty and other reasons, the villagers are still eating rice with seriously excessive cadmium content. Possibly for

reasons of face, the local government has refused to ratify a plan put forward by the Japanese Consulate to provide 600,000 yuan to help the villagers cover the drainage system.

In 2008, the Ministry of Health published the *Third National Review Report of Sample Survey for Death Causes*, providing statistics of cancer deaths in some counties and cities nationwide for 2004 and 2005. Wengyuan county was among the areas studied, but its mortality data were not published in the report and could only be accessed through direct inquiry.

One of the authors of this report, Ke Shen, went to Shangba village in Shaoguan, in Guangdong province, for a field investigation and found that both mine-washing water and the post-mining water residues are seriously contaminated.

According to Ke Shen, numerous mines have opened in China since the 1950s in the vast central and western regions, mostly located in the upper reaches of the country's major rivers. Until the 1990s, there was almost no awareness of the need for environmental protection, and the scope and extent of heavy metal contamination produced from this mining is potentially vast. Local protectionism and the desire for huge economic profit prevent researchers from accessing information or conducting scientific research in pursuit of effective mitigation measures. This is a major challenge that those working for environment and health must face.

In 2006, Wang Canfa of CLAPV, and Zhang Jingjing, a lawyer in the Beijing Minghai Law Firm acted in the case entitled *Cancer Villages Shaoguan in Guangdong province caused by Dabaoshan Mine.*

As the case is still in process, Zhang Jingjing politely refused China Dialogue's request to read related archival materials.

In fact, it will be very difficult for the villagers to win the suit. It is far from easy, moreover, to confirm the linkage between pollution from Dabaoshan Mine and the cancers.

## III. Environmental health and policy

The environmental health problems in Dongguan and Shangba in Shaoguan may soon emerge in other parts of China.

The GDP of Dongguan in 2001 was 57.8 billion yuan. Eight years later, this figure reached 370 billion yuan, but the city had to spend tens of billions of Yuan to control pollution, not including the cost of the damage to health caused by environmental pollution.

In fact, environmental health problems are not unique to Dongguan. According to the *National Action Plan for the Environment and Health* (2007–2015), China will establish and improve the system of laws, regulations

and standards for environmental health, establish a national environmental health monitoring network, strengthen risk assessment, early warning and capacity-building for emergency handling of environmental health issues, set up a national information sharing and service system, carry out investigations on the state of environmental health, improve technical support, strengthen social communication and education and develop international collaboration.

It is noteworthy that the action plan also stresses the importance of protecting the rights of citizens. It seeks to improve the legal basis of compensation for environmental damages, to investigate and set up rules for environmental damage appraisal, compensation procedures and scope, to explore the specific approach to compensation and ways of providing legal aid to the pollution victims.

However, in the past two years, there has been little progress in implementing the action plan. On September 17, 2009, in the fourth National Forum on Environment and Health held in Guangzhou, the director of Social Development Research Department to the State Council Development Research Center, Su Yang, pointed out that the management system for environmental health is still not clear, and due to the lack of a shared database, different departments are still going their own ways with unclear functions.

According to Su Yang, since coordination mechanisms were set up between the Ministry of Environmental Protection and the Ministry of Health, there has been no ministerial meeting. Since cooperation between different departments cannot fully be carried out, there are many obstacles to environmental protection. In the assessment system for health impacts, for example, there is much uncertainty about the facts of the impact of the environment on health that the system heavily relies on, and it requires large amounts of data and expert research for support. In addition, the two ministries are still separately organizing their own research institutions and research projects.

Su Yang also pointed out that, where the various departments have not yet commenced substantive collaboration at the central government level, local governments have more difficulties in operating a collaborative approach. Currently there are no coordination mechanisms between the local environmental protection departments and health departments, and no clear responsibilities defined for these departments. The subjectivity of the administrators is highly influential, and coordination between different departments occurs mainly through “rule of man” rather than rule of law.

The level of research on environmental health in China is also worrying. Wei Fusheng, the former chief engineer for the China Environmental Monitoring Center told China Dialogue that one evident problem facing them is insufficient money and a heavy workload. On the question of research on whether pollution is relevant to disease, for example, if the incidence of the

disease is a few in 10,000, the number of samples required may be many times that, and the human, material and financial resources required for research are large.

In October 2008, the China Council for International Cooperation on Environment and Development (CCIECD), a Chinese think-tank, submitted a report to the Chinese government, entitled *Policy Recommendations to Strengthen the Management of Environment and Health*. The report recommends upgrading the cooperation mechanism for environment and health from the current coordination of the the Ministry of Health and Ministry of Environmental Protection to a new system, with the State Council taking the lead, and the two ministries organising and coordinating, with broad participation from other ministries, in order to establish a government-led management system for environment and health, with public participation.

There are more than 20 Chinese and foreign experts from different domestic and foreign institutions in the CCICED Task Force. The Chinese research team is chaired by Professor Guo Xinbiao of Peking University's Health Science Center, while the foreign research team is chaired by Ichikatai Seiji.

In the task force discussion, Ichikatai Seiji emphasized that one of the challenges that China has to face is how to ensure compensation and relief for the victims of pollution.

Wei Fusheng also pointed out that the public have the right to know, and that government departments are responsible for protecting the interests of the people in environmental health and strictly regulating and monitoring enterprise accidents, as well as taking appropriate measures to narrow their impacts.

# Part three: Conclusion

We have entered a distinct phase of outbreaks of environmental health problems in China. For the media in the Pearl River Delta and other parts of China, there are definitely opportunities to conduct environmental health research and write reports, although the journalists will inevitably encounter some difficulties.

In the course of our investigation, we also encountered many difficulties. Environmental health issues are related to local economic development, the performance of the government officials and the governments' image, and though environmental health problems are currently of great concern to the government and the public, it remains a very sensitive topic.

China Dialogue's research and interviews in Dongguan did not go smoothly. Most local officials and experts approached refused our interview requests.

The director of the Dongguan Bureau for Environmental Protection, after receiving our message requesting an interview, did not answer the phone. Although Professor Wan Hongfu, a soil expert, was willing to be interviewed, he also had to consult the related government departments first, and was required not to provide the critical data. In Kanghua Hospital, the largest hospital in Dongguan, the director of the oncology department hesitated a great deal but finally refused, referring our interview request to the president, who could not be contacted despite many efforts. Although well aware of the situation in Dongguan, Song Qianwu, who was stationed in Dongguan for the China Research Academy of Environmental Sciences, hoped that the media would propagandise public environmental awareness as much possible, but not pursue the government and enterprises.

China Dialogue's request for the annual proceedings of the Environmental Medicine and Health Branch of the China Environmental Science Society was also politely refused, although this is a public academic conference, and its proceedings are not confidential.

Clearly, a lot of time and energy is needed to get more breakthroughs in interviewing officials and experts, and in understanding specific cases at the grassroots level.

In addition, it is difficult for us to enter factories. Even if we are allowed to enter for interview and visits, it is difficult to see the essential issues in a brief visit, and to form judgments on air quality or noise pollution using only our own senses.

For the next step, we are looking forward to getting further support, collecting more data on environmental health in Dongguan, Shaoguan and other cities in the Pearl River Delta region, collecting and tracking litigation cases

on environmental health, and selecting specific cases for more in-depth field investigations, focusing on the living conditions of pollution victims and investigating the systems and policies of environmental health management. We also hope that, through our research and media reports, we can contribute to the improvement of environmental health in the Pearl River Delta region and across China.

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# About chinadialogue

## www.chinadialogue.net

中外对话
chinadialogue

*chinadialogue* is a fully bilingual website and bimonthly print journal in Chinese and English, launched in 2006 to increase and deepen the quality of journalistic and public engagement with environmental topics in China. With editorial offices in London, Beijing, San Francisco and Delhi, half of *chinadialogue's* readers are based in China and include members of Chinese NGOs, journalists, key government officials, policy-makers and radical thinkers.

Articles from *chinadialogue* are widely reproduced by China's biggest newspapers and websites and help to influence the agenda of other publications, both Chinese and foreign. In September 2010 the *New York Times* called *chinadialogue* "a bi-lingual Web site that provides a valuable cross-cultural nexus for ideas and information on environmental problems."

For its non-Chinese readers, it remains one of the few places where Chinese views, research, policy ideas and reporting can be found. In 2010, *chinadialogue* inaugurated the first environmental journalism prize in China, to support those in China who share our objectives of a cleaner, greener environment for all, by making their work available to an international readership and by recognising and celebrating the best work in the field. Inside China, the prize encourages others to strive to raise their standards while offering an international platform to work that merits a global readership.

*chinadialogue* has also conducted training sessions for China's top environmental journalists; has organised high-level conferences around the world; has published long-form reports on topics that include investment in greentech, environmental risks on the Tibetan Plateau and climate-change journalism; and continues to be a go-to place for international expertise on the environment.

# German Asia Foundation

## www.asienstiftung.de


The German Asia Foundation was founded in 1992 to promote dialogue among civil society organisations in Europe and Asia. The German Asia Foundation is politically and economically independent.

## Our Mission

In cooperation with its partners in Europe and Asia the German Asia Foundation contributes to

**1. Shaping the future**
by collaborating with others to strengthen social inclusion, human rights, social justice, and environmental protection.

**2. Conecting people**
by developing cooperation between non-governmental organizations and social movements in Europe and Asia and by encouraging dialogue between civil society,academia, politics, and economy. We are committed to social movements and disadvantaged social groups.

**3. Promoting insights**
into life in Asia, the political and social realities of its people, and the state of human rights and the environment. We foster knowledge of the political, economic, and cultural relations between Europe and Asia. We create awareness of how things are interconnected: globally – regionally – locally.

## Our Main Activities

Our core project is the Asia House in Essen, a network of different Asia related organisations. Regionally the German Asia Foundation with its partners is focussing on Southeast Asia (esp. Burma, Indonesia, Phillippines), China and the Korean peninsula. Politically we follow critically the developments in European-Asian relations. We are leading member of the “Asia-Europe Peoples’ Forum” (AEPF).

## Our China Programme

Our China related activities have gained importance over the last years. We aim at contributing to differentiated China images in Europe, are focussing on developing insights in the work of civil society organisations in China especially among European NGOs. We see as one of our main tasks to organise dialogue and exchange between European and Chinese civil society organisations. The German Asia Foundation is partner in the "EU-China Civil Society Forum" as well as in the "EU-China Civil Society Dialogue on Participatory Public Policy" are some of our main activities.

**www.eu-china.net**

If you want to be informed regularly about our work, about civil society developments in China as well in European-Chinese relations you can subscribe to our China-related newsletter (http://www.eu-china.net/german/Newsletter/Newsletter.html).

If you are looking for more information or if you are interested in supporting our work, please contact us: German Asia Foundation/Asienstiftung, Bullmannaue 11, D-45327 Essen, asienstiftung@asienhaus.de or chinaprogramm@asienhaus.de.

In Europe and the United States in recent months there has been a public debate about working conditions at factories in south China – especially since the string of suicides at the Taiwanese-owned Foxconn plant. Many NGOs are conducting campaigns and advocacy work to raise awareness about such issues, include health effects on workers, and to influence the behaviour of individual and institutional consumers.

However, less attention has been devoted to the impact of the industrialisation process on the wider environment and on living conditions outside the factories. This study by *chinadialogue* may help to fill this gap.

This vivid and detailed account of reporting the environment and health in southern China may help readers to better understand the challenges and opportunities for reporters, activists, academics, funders and policy-makers working in an important field.

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