



C h i n a S u s t a i n a b l e E n e r g y P r o g r a m
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C H I N A C L I P P I N G S

Issue 3

April 1999

In this month's issue, the Asian Development Bank stressed the need for Asia to overcome its social and environmental problems before it can achieve long term economic prosperity. At the U.S.-China Policy Forum on Environment and Development, Vice-President Al Gore and Chinese Premier Zhu Rongji announced a series of agreements, including the signing of a \$100 million Clean Energy Program.

The *China Daily* reported on the public's increasing pattern of wasteful consumption and environmental concern in China. A *Far Eastern Economic Review* cover story detailed the reasons for selling off Chinese state-owned enterprises. Meanwhile, problems with corruption continue to plague the Three Gorges Dam project.

Topping the news in the energy sector is China's plans to lift price controls on coal to promote the use of cleaner energy resources, including natural gas. China also banned the construction of any new nuclear power plants for the next three years due to a decrease in demand for power. The State Power Corporation decided to lower electricity prices in an effort to encourage usage. AlliedSignal entered into a five-year joint venture with a Chinese company to make amorphous metal core products for use in energy distribution.

A recent study found that the fumes from burning raw coal in homes are poisoning millions of Chinese. An estimated 800 million people use coal in their homes in China.

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Interview: Asia Needs Green Recovery—ADB

By Marie McNerney

[Planet Ark (www.planetark.org): 4/12/99]
Asia's long-term prosperity hinges on how it overcomes environmental and social problems that rank among the worst in history, the Asian Development Bank (ADB) said late last week.

Asia is the world's most polluted and environmentally degraded region, said Kazi Jalal, chief of the ADB's office of environment and social development.

"You can see how population pressure (in Asia) is causing poverty, and poverty is causing environmental degradation, and environmental degradation is retarding the economic growth rate because the resources of the environment are also resources of development," Jalal told Reuters in an interview.

"It is a vicious cycle and unless you consider these social, economic and environmental problems in one context, you are not serious about meeting the challenges," he said.

The air in Asian cities was three times dirtier than elsewhere, and the ambient level of sulphur dioxide 50 percent higher than in Africa or Latin America.

Asia's rivers were far more polluted than those in other regions, its forest cover was shrinking by one percent a year, and Asian countries, excepting Bhutan and Malaysia, had lost between 70 and 90 percent of their original wildlife habitats.

But Jalal said it was not logical to blame rapid population growth alone, nor economic growth, industrialisation and urbanisation for Asia's environmental problems.

He said inappropriate technology, poverty, ill-defined property rights, a lack of

employment alternatives, or failed government and market policies were essential contributors.

"Market and policy failures have been identified by many experts as the major underlying cause of environmental degradation," Jalal said.

ADB policy required at least half its annual loan approvals and 40 percent of loan volume must go to projects where environmental and social issues were major objectives, he said.

In a paper to be delivered at a global data conference in Adelaide on Friday, Jalal said that despite Asia's current economic crisis, the longer-term outlook was far from bleak.

"Human capacities have not been destroyed, social and physical infrastructures remain largely intact, and there has been a strengthening of policies and institutional structures that promote openness and macroeconomic stability," he said.

"I am of the view that economic growth, under a new policy paradigm, is going to be the answer to Asia's problem of environmental degradation as well as of socio-economic well-being of its people," Jalal said.

"By 2020, a new Asia will emerge where the economic condition of its people will be more respectable, the social system will be more equitable, the environment will be cleaner and better, and people will live in peace, harmony and with human dignity."

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Environmental Cooperation Crucial

[China Daily: 3/23/99]

CHINA and the United States have great potential to strengthen collaboration in environmental protection, top environmental officials of the two nations agreed yesterday in Beijing.

Both countries are ready and willing to cooperate extensively in conserving the environment and resources and in promoting sustainable development, they said.

During talks with a US environment delegation headed by Carol M Browner, administrator of the US Environmental Protection Agency, Minister of the State Environmental Protection Administration (Sepa) Xie Zhenhua said the two countries have established a good relationship in the last two decades in coping with environmental problems. However, he added, co-operation has been on a small scale and should be developed further.

He said the Chinese Government has attached great importance to Sino-US environmental co-operation and such collaboration has become a major part of Sino-US relations.

The government and the people of the United States wish to continue to build their relationship with China, Browner told a press conference after the meeting. This benefits both countries and environmental protection worldwide, she added.

The United States and China should cooperate to find solutions to many

outstanding environmental problems, including climate changes and greenhouse gas emissions, Browner said.

She said she hoped that extensive exchanges and co-operation would enable China to profit from US experiences and avoid the mistakes her country had made during industrialization.

Browner was invited by Sepa to visit China to inspect implementation of the Sino-US co-operation project on the monitoring of urban air quality. This project was launched last year during US President Bill Clinton's visit to China.

The visit is also being used to make preparations for Premier Zhu Rongji's visit to the United States next month.

Browner has held talks during her visit with Zhu, Vice-Premier Wen Jiabao and senior officials at Sepa, the State Development Planning Commission and the National People's Congress Environmental and Resources Protection Committee.

Yesterday, Sepa and the US delegation discussed proposed projects for co-operation in the near future. The US delegation raised 12 projects that are mainly related to air quality assessment, reduction of air pollutions and the relationship between air pollution and respiratory diseases.

A Sino-US Workshop on Market-based Mechanisms for Pollution Control was held yesterday afternoon.

G E N E R A L

THE WHITE HOUSE

Office of the Vice President

For Immediate Release

April 9, 1999

VICE PRESIDENT GORE AND PREMIER ZHU RONGJI
ANNOUNCE ENVIRONMENTAL AGREEMENTS AT U.S.-CHINA
POLICY FORUM ON ENVIRONMENT AND DEVELOPMENT

U.S.-Chinese Environmental Cooperation Highlighted
with Agreements on Emissions Trading,
U.S. Exports of Environmental Technology,
and U.S. Investment in China's Energy Sector

Washington, DC -- Vice President Al Gore and Chinese Premier Zhu Rongji today at the close of the Second Session of the U.S.-China Policy Forum on Environment and Development announced a series of agreements that will help open Chinese markets to U.S. environmental technology, expand U.S. investment in the Chinese energy sector, and take several steps toward reducing greenhouse gas emissions in China.

As we count down the time to the 21st century in days, not years, more and more of our challenges are threats all nations face together, and no nation can solve on its own, Vice President Gore said. Nothing illustrates this better than the environment.

To meet the global environmental challenge, we must all act together. Today's agreements between the United States and China are a step in the right direction.

In an agreement that will accelerate the export of U.S. environmental technology to China, the U.S. Export-Import Bank, the Department of Energy, the China Development Bank, and China's State Development Planning Commission have signed A Memorandum of Understanding on a \$100 Million Clean Energy Program. By funding the sale of U.S. environmental technology to China, this program will accelerate the deployment of clean U.S. technologies in the area of energy efficiency, renewable energy, and pollution reduction.

In an agreement that will move China closer to a system of emissions trading, the EPA and China's State Environmental Protection Administration signed a Statement of Intent on development of a Sulfur Dioxide (SO₂) Emissions Trading Feasibility Study. The agreement calls for developing a study to test the effectiveness of emissions trading in China as a market-based approach to reducing greenhouse gas emissions. This approach -- which uses market mechanisms to create financial rewards for reducing pollution -- has been successful in cutting pollution at low cost in the United States.

In an agreement that paves the way for the first-ever foreign investment in an on-shore natural gas pipeline in China, Enron Corporation signed a Memorandum of Understanding on a natural Gas Pipeline Project with China National Petroleum Corporation for the joint development of a natural gas pipeline in south central China. This pipeline would represent an important piece of China's natural gas infrastructure and help offer a cleaner alternative to fossil fuels.

The pipeline agreement came out of U.S.-China discussions on natural gas policy at the Oil and Gas Industry Forum, held under the auspices of the Energy and Environment Cooperation Initiative (EECI). The EECI is an outgrowth of the U.S.-China Forum and was established in 1997 by former Secretary of Energy Federico Pena and State Planning Commission Vice Chairman Zeng Peiyan to focus U.S.-China cooperation at the intersection of energy and environmental science, technology, and trade.

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The U.S. and Chinese delegations also concluded agreements involving energy efficiency, air quality management, cleaner air and cleaner energy technology, and the impact of pollution on children's health.

The U.S.-China Policy Forum on Environment and Development was founded by Vice President Gore and then-Premier Li Peng in March 1997 to expand cooperation and intensify dialogue between the U.S. and China on issues related to sustainable development, particularly protection of the global environment. The Forum is divided into four working groups -- co-chaired by representatives from various agencies -- which act as coordinating mechanisms for activities taking place under the Forum, as well as those outside its structure.

The Energy Policy Working Group discusses issues of energy generation, and major energy-using activities in the industrial, transportation, building, and utility sectors; 2) the Environmental Policy Working Group consults and coordinates on multilateral and bilateral environmental issues, such as climate change, forestry, pollution prevention and control, waste management, and health impact of pollution; 3) Science for Sustainable Development studies the application of science and technology to understand and foster sustainable development; and 4) Commercial Cooperation promotes trade in energy, environment, agriculture, and other aspects of sustainable development.

Working groups schedule their own meetings and projects throughout the year. The full Forum gathers in plenary session when the two countries deem necessary to report to the Vice President and Premier on the progress of projects and to discuss further cooperation.

For additional information on U.S.-China Policy Forum activities please contact:

Commercial Cooperation -- Padraic Sweeney, Department of Commerce, 202/482-0135
Energy Policy Working Group -- Jane Brady, Department of Energy, 202/586-5000
Environmental Policy Working Group -- Brendan O'Neil, EPA, 202/260-0680
Science for Sustainable Development -- Susan Ruffo, White House, OSTP, 202/456-6105

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Promoting Public Pollution Awareness

[China Daily: 3/23/99]

HOME to 1.2 billion people, China suffers from a serious lack of environmental awareness, a problem that can only be improved by convincing its citizens that they are responsible for cleaning up their act.

"Green" consumption must be supported because China generates an estimated 155 million tons of urban refuse annually, which can not be handled properly by the country's underdeveloped recycling system.

Recycling is not really new in China. Just a few years ago, little went to waste. Office workers used coffee jars as tea mugs, orange peels were hung out to dry and used in Chinese medicine, and roadside repairs were available for just about everything.

But as people's living standards improved and the tempo of city life quickened, the use of disposable products in fast food restaurants and unnecessary supermarket packaging proliferated, even though these practices have fallen from favour in the West. This has resulted in a wasteful consumption pattern in China.

Since the 1980s, the international environmental protection campaign has shifted from pure concern for nature to a battle against the unnecessary waste and use of resources in daily life, while China started to succumb to "conspicuous consumption," a term coined by Thorstein Veblen, a renowned 19th and early 20th century economist and social critic.

Certain individuals in China, however, have recognized the importance of promoting ecologically-friendly lifestyles.

Liao Xiaoyi, who holds a master's degree in philosophy and serves as president of a non-governmental ecological group called Global Village, believes the most pressing issue now for China is finding ways of getting people to act.

According to a survey published in the China Health News, when asked how a person should deal with a bit of trash at a public place that does not have dustbins, 75

per cent of respondents said they would discard the trash on the ground in a covered place.

Although most Chinese worry about water and air pollution, they think the government should take sole responsibility for solving the problem.

"If every individual Chinese willingly reduced the waste of water and electricity; used recyclable products instead of plastic shopping bags and food cartons; sorted their recyclable waste; and refused to eat wild animals, the 1.2 billion Chinese would surely become the world's most mighty environmental protection army," Liao said in the preface of her "Citizen's Environmental Guide," the first book of its kind in China.

Volunteer projects in China are a wonderful way to get Chinese youth involved in "green culture."

University students, active in forming ecological societies and in spreading "green" ideas, are a major force in promoting environmental awareness.

These kinds of projects help volunteers understand the effects of their actions and helps develop their sense of responsibility to the environment and others in the community.

However, the concept of environmental education, first introduced during the late 1940s in Europe, is new to China.

People's ignorance of ecological issues prevents them from doing the right thing.

Environmentalists warn that China should not follow the path of "high consumption and high pollution," which has proven so destructive and costly in developed countries.

Extravagant use of private cars and air-conditioners has made the United States the world's top greenhouse gas emitter.

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China must reconcile its incessant drive to consume more goods and energy with the goal of preserving the environment.

Unfortunately, after years of backwardness and poverty, many Chinese are still preoccupied with their own material well-being and regard "environmental protection" as a concern of the wealthy in industrialized countries.

To enhance public awareness of environmental protection in a more

effective and systematic way, China should train more qualified environmental educators.

It is also essential to reform primary and middle school geography textbooks. New textbooks should instill an understanding of serious environmental issues facing the Chinese people, instead of simply focusing on China's vast territory and abundant natural resources.

'Clean' Plan Starts in Taiyuan

[China Daily: 3/23/99]

TAIYUAN (Xinhua) _ A United Nations programme promoting clean industrial production began on Saturday in Taiyuan, capital of North China's Shanxi Province, which was chosen by the UN Environment Programme as China's first trial city.

This shows that China has entered a new phase of industrialization, according to Qu Geping, chairman of the National People's Congress's Committee for Environment and Resource Protection.

The purpose of clean production is to make maximum use of resources and energy with a minimum amount of environmental pollution.

Clean production studies have been done on more than 200 manufacturers in China, and the combined annual wastewater output of these enterprises has been cut by 40 per cent. Gas output has been reduced by 800 million cubic metres annually.

Taiyuan is an industrial centre, but it is also one of the nation's most polluted cities. The city government has selected 10 enterprises for the first group to implement the clean production project. It plans to give full support to the comprehensive use of coal and of environmentally-friendly furnaces.

Half the city's large manufacturers are expected to meet clean production standards by 2001, and by that year, Taiyuan should become a model clean industrial production city.

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Funds for China's Three Gorges Dam Gambled Away

[Lateline News (lateline.muzy.net): 4/30/99]
BEIJING - A government official in Chongqing (News) , Sichuan Province gambled away 1.2 million yuan (144,000 dollars) in public funds intended for relocating farmers out of the Three Gorges Dam area, the Beijing Daily reported.

Wang Sumei has been accused of taking money from the Migrant Bureau of Wanzhou district and losing it in extravagant mahjong parties between September 1997 and December 1998.

She is accused of misappropriating public funds and gambling and is expected to be tried soon, the paper said.

Wang was described as a compulsive gambler who continued to mount up debts in an effort to win back her losses. She regularly took between 60,000 to 200,000 yuan from the relocation fund which she had complete access to.

Some 1.3 million people are expected to be relocated from the banks of the Yangtze River to make way for the 632 square kilometer (252 square mile) reservoir which will be created upon the completion of the Three Gorges Dam, the world's largest hydroelectric project.

Orders for a thorough investigation of the case came from the State Council, China's cabinet, which has vowed to crackdown on official corruption related to the controversial dam.

China to Promote Clean Energy

[Lateline News (lateline.muzy.net): 5/3/99]
BEIJING - China, home to some of the world's most polluted cities, will promote the use of cleaner energy resources by phasing out price controls that favor China's abundant but highly polluting coal stocks, the China Daily Business Weekly reported on Sunday.

The decades-old price controls will be lifted next year, and the government will formulate measures to promote natural gas use, the newspaper quoted a petroleum industry official as saying.

Ma Shenyuan, a deputy division chief of the State Administration of Petroleum and Chemical Industries, said the price controls would be replaced by pricing formulas to protect suppliers and end-users while curbing abuse of monopolies.

The government will promote the use of natural gas through fiscal spending, tax breaks, preferential licensing and other measures, Ma was quoted as saying.

The China Daily Business Weekly quoted a second petroleum authority official, deputy director Chen Geng, as saying Beijing would boost natural gas use to 80 billion cubic meters in 2010 from 22 billion cubic meters last year.

To prepare for greater use of natural gas, including possible imports from Russia, China would build a nationwide network of pipelines and storage facilities. The first storage depot would be built this year at a cost of \$60 million, it said.

China faced a costly challenge in developing natural gas because its proven reserves were all in remote western regions of the country, far from energy-hungry eastern and central cities, the newspaper said.

The report said China had reached a consensus on the need to turn to cleaner energy sources to restore an environment devastated after two decades of breakneck economic growth largely fueled by the country's vast coal reserves.

In a separate report, the official newspaper quoted State Coal Industry Bureau officials as saying 40 exhausted and polluting state coal mines would be closed this year.

Coal output fell 16 percent last year from the previous year, reflecting the relative decline in output of traditional smokestack industries in favor of high-technology sectors which consume less coal, it said.

AlliedSignal, Chinese Company in Joint Venture

[Planet Ark (www.planetark.org): 4/23/99] MORRIS TOWNSHIP, N.J. - AlliedSignal Inc. it had entered into a five-year joint venture with China-based Shanghai Zhixin Enterprises Co. to make amorphous metal core products for use in energy distribution.

The deal should generate \$200 million in product sales over five years, AlliedSignal said.

Under the agreement, privately held Shanghai Zhixin will buy a minority stake in AlliedSignal's amorphous metals operation in Pudong, China.

"China is one of our company's important growth regions, and we are embarking on this aggressive expansion to meet the region's rapidly growing demand for electrical distribution transformers that have amorphous metal cores," Larry Bossidy, AlliedSignal chief executive, said.

Amorphous metal transformers are more energy efficient than conventional energy transformers, Shanghai Zhixin said, because they use silicon steel cores that can reduce the no-load loss by up to 80 percent. No-

load losses occur when voltage is applied to the transformer and can represent a major portion of energy lost during power distribution.

The transformers also can reduce carbon dioxide emissions created during power generation.

Shanghai Zhixin said that amorphous metal transformers in China could save enough energy to power the city of Dalian for eight years and cut carbon dioxide emissions by 55 million tons, or the amount produced by 12 million automobiles.

Aerospace and industrial products supplier AlliedSignal has been in talks with the Chinese government since 1994 to demonstrate the value of amorphous metal transformers.

Shanghai Zhixin is a limited-liability firm based in Hong Quia Shanghai and has affiliates in industries including real estate and property management, industrial manufacturing and service.

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China Daily
March 22, 1999

**State Power Corporation Reverses
Policy, Encourages Power Usage**

[China Online: 4/14/99]

Chinese power companies have discounted electricity prices in an effort to increase usage. This is a reversal from a few years ago when electricity was in short supply in China. However, as the power industry has developed, electricity has become more plentiful – leading in some cases to oversupply. This has prompted some power companies to adopt measures to encourage consumption – for example, giving a 10% discount on anything in excess of 100 kwh per month. In response to the changed environment, the State Power Corporation late last year began lifting regulations that imposed fines on consumers who exceeded usage quotas. In addition to discounting rates, some local power companies are improving the quality of the service, increasing the power level in many households from between 5 and 10 amperes to between 20 and 40 amperes. China's residential and commercial sectors have very low per capita power consumption rates.

China Says No New Nuclear Projects for Three Years

[Planet Ark (www.planetark.org): 4/30/99]
BEIJING - China has ruled out starting any new nuclear power projects in the next three years due to decreasing power demand, Xinhua news agency quoted a senior nuclear industry official as said yesterday.

The official agency quoted Shen Wenquan, director of the Nuclear Power Department under the China Nuclear Industry Corp, as saying the decision was taken because of the falling demand for power as a result of the Asian economic crisis.

"There has also been undercapacity at a number of large state-owned enterprises," Shen was quoted as saying at a nuclear power exhibition in Shanghai.

The decision could put a damper on hopes of major Western reactor and equipment producers to sell in China, which is forecast to experience rapid growth in power demand well into the next century.

Shen, however, said the shortages would be short term and urged potential investors to stay in the market, Xinhua said.

"This does not mean bleak prospects for nuclear power development in China," Shen said.

"Both domestic and overseas investors should not lose sight of a great potential market demand for nuclear power in this country," he said.

Shen said low prices had hindered nuclear power development in China, which had imported high-cost equipment and technology that had pushed up the price of nuclear power to levels higher than those of thermal and hydro-electric power.

China would use the next three years to upgrade existing power grids and weed out crude and polluting thermal power plants in an effort to enhance power quality and returns on investment, he said.

China has two nuclear power stations under commercial operation, the 12 billion kwh Qinshan plant in the eastern province of Zhejiang and the 50 billion kwh Daya Bay plant in the southern province of Guangdong, Xinhua said.

Two others are under construction, it said. Their completion by 2006 would raise the share of nuclear power in China's total power output to three percent from one percent.

The State Development Planning Commission is working on a nuclear power development plan designed to raise China's nuclear power generating capacity to 20 million kilowatts by 2010, and to 40 million kilowatts by 2020, Xinhua said.

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T R A N S P O R T A T I O N

Car-Snarled Chinese Cities Get World Bank Help

[Planet Ark (www.planetark.org): 4/1/99]
WASHINGTON - The World Bank will lend China \$150 million to help ease traffic congestion in three cities in the Liaoning province, promoting the use of cleaner cars and fuel and building a better transport net.

A World Bank statement said the money would be used to build bridges, railway crossings and bus and cycle lanes in the cities of Shenyang, Fushun and Anshan, as well as encouraging cars which take lead-free fuel or use pollution-busting catalytic converters.

"The major issues facing the urban transport sector in China stem from more cars and trucks, rapidly growing cities, inefficient

public transport systems and poorly coordinated institutions arrangements for managing traffic in the cities," the statement said.

"Traffic congestion is already an important constraint to productivity and efficiency in the cities. Air pollution from vehicle emissions poses a serious health threat to the cities' populations."

China is one of the World Bank's biggest borrowers and recent loans have provided money for projects like roads, shipping and flood relief.

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Study: Coal Fumes Poisoning Chinese

[Lateline News (lateline.muzi.net): 3/30/99]
 WASHINGTON - Millions of Chinese are being poisoned by fumes from the raw coal they burn in their homes for cooking and heating, and people in other developing nations may face similar risks, U.S. and Chinese scientists say in a study.

An estimated 800 million of China's 1.2 billion people use coal in their homes. In many rural communities, the fuel is full of arsenic, lead, mercury, fluorine and other poisonous metals that can pose a serious health threat, the researchers said.

The poisons become part of the smoke from burning coal and are then breathed into lungs and baked into foods, said Harvey E. Belkin, co-author of a study appearing Tuesday in the Proceedings of the National Academy of Sciences.

For example, peppers dried over coal fires can have up to 500 parts per million of arsenic, a potentially dangerous level, he said.

“The coal we saw in China could never be burned in the United States” because of the poison mineral content, said Belkin. “There is high arsenic, high selenium, high mercury.”

What's learned in China may point the way to solving the problem of possible health effects from burning dirty coal, Belkin said.

In one Chinese province, experts have identified thousands of cases of arsenic poisoning, with symptoms including skin cancer and open sores.

In another area, at least 10 million people have fluorine poisoning with many suffering from soft and misshapen bones, said study co-author Robert B. Finkelman.

Diseases and disorders caused by burning of dirty coal are “an enormous problem,” said Finkelman.

Such dirty coal would have to be cleaned

before it could be burned in the United States. And coal in any form is seldom used in the U.S. for cooking.

In China, Belkin said, millions of people have no choice. About 22 percent of rural homes depend on coal.

“If they want to cook or heat, they have to use coal,” he said. China has very little oil, gas or wood that can be used for fuel. But China has the world's largest known reserves of coal. For many peasants, the coal is dug out of hillsides, free for the taking.

Many poor Chinese burn the coal in unvented stoves, filling their homes with fumes, Belkin said. Indeed, early mornings in rural villages finds most homes wreathed with the bluish haze of coal smoke.

In southwest China's Guizhou province, which has beds of arsenic-rich coal, farmers routinely dry peppers over coal-fired stoves. The produce absorbs the smoke and fumes, and then are added to virtually every food prepared, Belkin said.

It is unknown if the arsenic poisoning has caused any deaths, he said, because death certificates and autopsies are rare in rural China, but at least 3,000 confirmed cases of chronic arsenic poisoning have been confirmed.

In another area, farmers use coal with a high fluorine content to dry corn, Belkin said. The grain takes up high levels of the poison mineral, he said, and as a result fluorosis, or fluorine poisoning, is very common. The effects can range from discolored teeth to softened, twisted and crippled bones.

Judy Mumford, an Environmental Protection Agency scientist who has studied China's pollution problems, agrees that poisoning from the burning of dirty coal has had a very severe health effect.

Chinese officials, aware of the problem, are beginning to search for solutions, she said.
 [AP]

Pearl River Delta's Acid Rain Rate Over 50 Percent

[Planet Ark (www.planetark.org): 4/20/99]
SHENZHEN, China - More than 50 percent of the rain falling around China's southern Pearl River Delta is acidic, ranking the region up with the world's worst, the Shenzhen Economic Daily reported yesterday.

The figure was comparable with heavy acid rain regions in North America, Japan and Western Europe, it quoted the Environmental Monitoring Centre of the southern province of Guangdong as saying.

All cities in the prosperous Pear River Delta, which borders Hong Kong, have been included in a government list of 17 acid rain control zones, the newspaper said.

Pollution of the rainfall was caused mainly by vehicle emissions and small power plants in the region burning fossil fuels, it said.

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Air Quality, Major Concern for Beijing Residents

[China Daily: 03/22/99]

"LOOKING into a local newspaper in Beijing, or tuning the TV to the local channels, every day you can find air-quality reports and stories about air and the environment," remarked Zhang Meng, a 20-year-old college student at Renmin University.

Zhang, a journalism major, told the very truth about the city's concern about air pollution and environmental improvement.

Last fall and winter, abnormal meteorological conditions formed an inversion layer over the city's urban districts, which resulted in difficulties in scattering pollutants in the air.

The serious pollution problem spurred the local governments to take emergency efforts, cutting the polluting emissions and cleaning up the environment.

Although statistics are still not available from the local health care agency about whether there was an increase in the incidence of respiratory diseases, a strong flu caught many citizens with sore throats and coughs last winter.

"We could not ascribe the flu to air pollution, but the air pollution indexes gave us no comfort over the winter," said Hu Shanshun, a government employee.

Hu noticed that more than half of the weekly reports on the city's air quality over the winter were in the fourth grade, which meant the air was very seriously polluted.

Hu rode bicycles to and from work, and found it hard to breathe, especially during cloudy days or when crossing main road intersections. He wished the capital city's air would someday become as fresh as that of his coastal hometown in Shandong Province.

While Hu was among those most concerned with the government's measures to control air pollution, some people in this city were calling on the public to use legal weapons to protect their health from being hampered by pollution.

The weekly "Global Village," based in this city, carried an article written by Zhu Jinjiang this month, about an American movie depicting a serious accident contaminating drinking-water sources and the following lawsuits. In addition to describing the movie, the author urged the Chinese public to think more about the same issues in their daily life.

While some people are thinking and debating, others are busy doing something to save the environment.

Zhang Zhixin, a 70-year-old woman, has been leading a campaign of collecting plastic packages for recycling for years.

Chang Zhongmin, once a restaurant manager, now has devoted himself to reclaiming barren hills by planting trees and setting up his own nature reserve in a suburban area.

All these people believed their combined efforts would make the city much cleaner and more comfortable to live.

A Scandinavian traveller, who asked to remain anonymous, said he found Beijing's air to be "bad" but not "too bad." He suggested that one solution to the problem is to expand the subway system.

He was among thousands of foreigners in this city who are concerned with their health and are looking forward to breathing fresh air.

Pollution Control Measures Pay Off

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BEIJING is determined to improve its air quality by October 1, when grand ceremonies will be held in this city for the 50th anniversary of the founding of the People's Republic of China.

After the adoption of 18 emergency measures since last December, the deteriorating trend of air pollution was basically curbed, according to Xiang Baiqin, an official in charge of air pollution control with the city's environmental protection bureau (EPB).

Monitored data show that nitrogen oxide, sulfur dioxide and carbon monoxide in the air had decreased by over 10 per cent in January when compared with the previous month.

Xiang announced that the density of sulfur dioxide fell substantially, and that suspended particles in the air continued to decrease in February.

In comparison with the same period last year, the first two months' densities of sulfur dioxide and suspended particles in the air have been reduced, but that of nitrogen oxide did not fall.

Sulfur dioxide in the city's air mainly comes from the burning of coal containing a large amount of sulfur. To reduce sulfur dioxide, firm measures have been implemented to encourage the use of low-sulfur coal, as coal is still a major energy source in the city.

Every year, more than 28 million tons of coal are consumed, mostly for central heating and by industrial power systems in urban districts.

More than 92 per cent of the sulfur dioxide in the air will be cut if these 28 million tons of coal use a type not containing more than 0.5 per cent of sulfur, according to the EPB data.

So far more than 16,700 stoves within the Third Ring Road have shifted to low-sulfur coal and cleaner fuel such as natural gas or liquefied petroleum gas (LPG).

This year, fees collected on sulfur dioxide discharges will be raised as an incentive to spur industrial units to switch to a cleaner fuel.

Pollution caused by automobiles, another major pollution source in Beijing, is also a target, said Chen Tian, another official with the city's EPB.

Nearly 40,000 vehicles exceeding their life expectancy have been taken off the roads, and about 600 buses and taxis using LPG or natural gas are now running through the downtown area.

These efforts have resulted in the decline of nitrogen oxide in the air in February when compared with January. This increase of nitrogen oxide last month, when compared with the same period last year, is largely due to a larger number of automobiles and a population increase, according to Chen.

Chen quoted the EPB Vice-Director Yu Xiaoxuan as saying the measures were still far from enough, and 28 new air pollution control measures, which were implemented early this month, were aimed at further improving Beijing's environment.

The 28 new measures have comprehensively taken into account the city's various environmental problems. Among many aspects, they focus on dust control as spring comes with its strong winds.

Construction sites, garbage-collection and transportation vans are required to take measures not to spread dust in the air, while every units are ordered to maintain their green lots, and plant more trees.