

The Green Leap Forward

ENVIRONMENTALISM IS CHINA'S FASTEST-GROWING CITIZEN MOVEMENT. BEIJING ISN'T CRACKING DOWN ON THESE NEW ACTIVISTS—IT'S EMPOWERING THEM.

By Christina Larson







Rising tide:

More villages each year form local militias to guard water rights.

China's environmental problems are no longer its own. On bad days, the country generates a quarter of Los Angeles's smog.

China is on its way to becoming not only the world's largest economy, but also its largest polluter. Of the world's twenty most polluted cities, sixteen are in China. Ninety percent of the country's cities have contaminated groundwater. The World Bank predicts that in the next fifteen years, China's shortage of clean water will create 30 million "environmental refugees."

China's pollution problems, moreover, are no longer solely its own. Winds that whip up over the Gobi Desert sweep dark clouds of mercury, soot, and carbon monoxide to South Korea and Japan; as much as 40 percent of the air pollution in these countries can be traced to China. The toxic plumes travel further afield, now detected by scientists in San Francisco and Lake Tahoe. On bad days, a quarter of Los Angeles's smog originates in China. Later this year, China is expected to overtake the United States as the world's largest emitter of greenhouse gases; within twenty-five years, its annual contribution to global warming could triple.

One of the most polluted cities in China is Lanzhou, the capital of western Gansu Province, situated at the point where the Silk Road crosses the Yellow River. Historically a remote trading outpost, Lanzhou was transformed in the 1950s and '60s in keeping with Mao Zedong's vision for China's future prosperity: "The machines are rumbling, and smoke is rising from factories." Adopting the adage of the time—"Pollute now, clean up later"—Lanzhou became northwest China's primary hub for oil refineries and petrochemical plants. Today, the city stretches long and narrow between the Gaolan and White Pagoda mountains, but on many days thick smog masks their peaks. Just by breathing the city air, Lanzhou's 3 million residents inhale the equivalent of a pack of cigarettes a day. Ten percent of the Yellow River near Lanzhou is now sewage, and last year three industrial spills turned its waters an ominous red.

One snowy morning in March, I drove along the river in a rented white van with Zhao Zhong, a twenty-five-year-old nuclear engineer by day and grassroots environmentalist by night. He wore a blaring red imitation North Face jacket, and his cheeks, resembling polished apples, pushed up the lower rims of his glasses when he smiled. As we drove, he pointed out factories that defile the river. Since last fall, Zhao has been mapping the coordinates of these factories with a GPS device borrowed from a local university, and unearthing public but hard-to-find pollution data. He slowed the van near one imposing gate, and we peered through the bars at the Lanzhou Petrochemical Company plant, a state-owned facility that Zhao has been watching closely. Construction on the plant started in 1956 under Mao's first Five Year Plan, a massive facility churning out lubricating greases, petroleum resin, and antifreeze. Today, it's the largest petrochemical campus in northwest China, with tens of thousands of employees and a calamitous record of fires, explosions, and chemical spills. Several years ago, its drainage system leaked forty-five



Flourishing:

Beijing is encouraging grassroots environmentalists like Zhao Zhong to collect data on local polluters—including state-owned factories.



Air conditioning:

To understand the government's concern for the environment, it helps to remember that officials must endure Beijing's chronic pollution.

Beijing's decision to open up the economy has been a wild success in economic terms, but it has also diminished the central government's reach.

tons of heavy oil into the Yellow River, followed last winter by a discharge of engine oil.

I had met Zhao the previous night in his office, a two-room apartment on the rundown western side of town. This modest flat is the headquarters of Green Camel Bell, Lanzhou's first environmental group, which Zhao founded three years ago. On the wall, there was a tidy whiteboard with assigned tasks and a giant map of the city, hand-drawn in Magic Marker, which showed the course of the Yellow River and the locations of factories near the water. A group of mostly twentysomethings, along with an unassuming fifty-something-year-old woman, sat around a table, discussing an environmental curriculum for local schools. I later discovered that the older woman was Zhao's mother, and one of Green Camel Bell's most dedicated full-time volunteers.

Green Camel Bell's mission is the "protection of the Mother River," a motto that evokes the history of the Yellow River basin as the cradle of Chinese civilization. Among other activities, the organization's two paid staffers (Zhao draws no salary) and several dozen volunteers assemble the environmental records of factories across Lanzhou: culling newspaper articles, academic studies, and reports prepared by local environmental officials, many of whom Zhao knows. They send the information to a partner group in Beijing, which feeds it into the China Water Pollution Map (www.ipe.org.cn/english), a free online database that allows users to access information about water quality in their region. The site also publishes a list of factories that violate national environmental standards—including many state-owned enterprises.

In most other spheres, Beijing's government remains intolerant of this sort of scrutiny and criticism. It silences journalists deemed overly energetic in their investigations of official malfeasance; it jails human rights activists and religious leaders whom it sees as subversive. Nervous that I might get Zhao in trouble, I asked him if it was okay to use his name in print. He nodded. Then he grinned and put his arm around two staffers, posing in front of the map on the wall. "Please," he said, "if you would like to take pictures."

It turns out Zhao has little to fear from Beijing. Not only is China's emerging environmental movement tolerated by the central government; for the most part, it's encouraged. More than 3,000 groups like Green Camel Bell currently operate in China, constituting the largest and most developed segment of the country's budding civil society. Some NGO leaders are even consulted by government officials and praised by the state-controlled media.

The kid-glove treatment China's environmental activists receive is not a sign that Beijing is willing to relinquish political control. The Communist Party's agile leaders are well aware of the role that civil society groups have played in the fall of other authoritarian systems. Rather, the government is taking a calculated risk. It is opening space for political participation in the hope of preventing what it sees as an

even greater threat: that the country's rapidly deteriorating environment will imperil China's vibrant economy—and perhaps, one day, the party's own hold on power.

Like other cities in China, Beijing has a daily weather report and a daily pollution report. On the increasingly crowded freeways, drivers can see only so far ahead; each car leaves a wake in the smog. The dank air creeps inside buildings, into cars, into hotel rooms, leaving you nowhere to escape the distinct smell and the feeling of a weight always on your chest. The sun looks like a flashlight wrapped in cotton gauze, and the sky remains beige no matter the time of day. Most days, the city has no discernible skyline. Most nights, no moonlight or starlight pierces the darkness.

To understand why Chinese officials are genuinely concerned about the country's growing environmental problems, you must first remember that they live here. Pollution is one by-product of China's thriving economy that can't be evaded with influence or cash. One former U.S. Energy Department official told me that his Chinese counterparts rave about the air on visits to Washington, bemoaning Beijing's bleak skies.

More important, environmental problems now threaten the sustainability of China's economic expansion. Already the costs of environmental cleanup, property damage, and lost productivity are staggering. China's State Council, the nation's highest administrative body, reported that pollution cost the country more than \$200 billion in 2005, almost 10 percent of the country's GDP. Industry releases 2,000 tons of airborne mercury each year, which settles into the soil, contaminating 12 million tons of grain each year and threatening food safety, including China's \$31 billion agricultural export market. (*Time* reported that only 6 percent of Chinese agricultural products imported to the United States are free from pollution.) The future portends to be more alarming still. Water scarcities could shut down paper mills and petrochemical plants. Air pollution in Hong Kong could force a mass exodus of talent (already hedge fund managers are fleeing the smog for Singapore). The country's deputy environmental director, Pan Yue, has warned, "China's economic miracle will end soon because the environment can no longer keep pace."

Even more troubling, the effects of pollution—poisoned water and contaminated fields—are provoking riots in the countryside. Or, as China's environment minister, Zhou Shengxian, has observed, the environment has become an issue that "triggers social contradictions." In 2005, the government reported 51,000 pollution "disputes," many of them violent. More villages each year form local militias to guard water rights. This makes Communist Party leaders deeply uneasy. After all, for millennia China's history has been defined by dynasties rising and falling, the ruling powers frequently toppled by angry peasants whose wel-

fare was neglected. As Minxin Pei, the director of the China Program at the Carnegie Endowment for International Peace, explained, "The government is willing to tolerate anything but social instability."

Beijing, therefore, has recently become determined to clean up its act—if not for the environment's sake, then to avert economic woes and social unrest. Indeed, it has issued environmental targets that, at least in some areas, are among the most progressive in the world. Last year, the government set goals of reducing air pollution 10 percent and increasing energy efficiency 20 percent by 2010. And it has put more money into meeting those targets, increasing its environmental protection budget by 60 percent. As Elizabeth Economy, the director for Asia studies at the Council on Foreign Relations and author of an environmental history of China, *The River Runs Black*, observes, "It's clear there's been

The effects of pollution are already provoking riots in the countryside. This makes Communist Party leaders deeply uneasy.

an uptick in both rhetoric and real concern."

The dilemma is enforcement. The central government's decision to open up the country's economy has simultaneously undermined its ability to impose its will on far-flung provinces. Since 1980, China's economic strategy has been one of decentralization. State-owned enterprises have been partially privatized; provincial governments have been given more authority; entire sectors of the economy have been deregulated.

In economic terms, this strategy has been wildly successful. But it has also diminished the central government's reach. Gone are the days when Beijing could easily disseminate party dicta—or orders such as not dumping trash into the river—to every citizen through clearly delineated work units. Perhaps more significant, the central government has a dwindling ability to make regional and local government officials follow its lead. Although laws are promulgated in the capital, provincial authorities are responsible for implementing them. But provincial governments depend on tax revenue from local industries, so shutting down polluters often runs counter to their interests. Local officials are no longer beholden to the party patronage machine as they once were. They can make good money by selling land to developers, or taking bribes to protect a private factory. A promotion from Beijing is no longer the only route to upward mobility.

The central government no longer maintains a permanent presence in the provincial capitals, so there is no energetic



Unknown territory:
Ma Jun, arguably China's most prominent environmentalist, hopes to generate new forms of pressure on polluters.

national oversight of what happens in a place like Lanzhou. Local environmental bureaus are supervised and financed not by Beijing but by provincial authorities whose officials would be unable to afford their chauffeur-driven cars without payoffs from potential polluters. As a result, China has numerous national laws that sound wonderful on paper but can't be enforced. David Lampton, head of the China studies department at Johns Hopkins University's School for Advanced International Studies, has popularized the term "implementation bias" to describe this phenomenon. He defines it as "the situation in which every central initiative will be distorted in favor of the organization or locality responsible for implementation."

This breakdown in governance is so pronounced that, in defiance of Beijing's ambitious targets, the country's environment is getting worse, not better. Official reports likely understate the problem, but those numbers are troubling enough. Beijing vowed in 2002 to reduce sulfur emissions by 10 percent in three years, yet they climbed by nearly 30 percent. More than 4,000 rogue mines leach mercury into the soil. An estimated one in five power plants operate illegally—enough to fully power the United Kingdom. Last year, Mao Rupai, chair of the congressional environmental committee, estimated that in some far-flung provinces as few as 30 percent of environmental regulations are upheld.

To deal with this predicament, Beijing has invited help from an unexpected corner: civil society. Citizen groups can help spread information, provide oversight, and put some pressure on local authorities. The government granted legal status to NGOs in 1994, and green groups were the first to flood into this new space. Initially, they focused on innocuous campaigns like environmental education and trash pickup. In 2003 and 2004, however, environmental activists gained a major wedge in the door of the public policy process with the passage of a series of laws and accompanying regulations. One law, for instance, required environmental-impact assessments to be conducted before construction projects could be approved, articulating for the first time the principle that the public has a right to participate in the process. Another gave members of the public the right to request a hearing when an administrative ruling—for instance, one that granted a license for a construction project—would impact them substantially and directly. Given the Communist Party's long-standing preference for secrecy, these measures represented a fairly dramatic departure from the past.

Already environmentalists are exploiting them. Last year, the Global Environmental Institute, a Chinese nonprofit, was instrumental in getting Beijing's city government to adopt energy-efficient rapid-transit bus lanes. After NGOs objected to a series of planned dams on the Nu River, Premier Wen Jiabao suspended the project, pending an environmental-impact assessment.

If anyone is seizing the opportunity created by Beijing, it is Ma Jun, arguably China's most prominent environmentalist. Ma, who was selected as one of *Time's* 100 Most Influential People in 2006, is the brains behind the China Water Pollution Map, the Web site to which Zhao Zhong contributes.

I met Ma at the Beijing headquarters of the Institute of Public & Environmental Affairs, the nonprofit he founded two years ago. Slight and energetic at thirty-nine, with a boyish face and a quick smile, Ma was dressed in smart business-casual style (dark suit, no tie), and had a Bluetooth headset affixed to one ear. A floor-to-ceiling office window looks out over the murky city skyline, but his bookshelves are lined with photographs he has taken of China's western provinces: steep gorges and winding rivers, the landscape of numerous epic movies. His bookcase holds Henry David Thoreau's *Walden* alongside an ecological history of China, *Retreat of the Elephants*, and Malcolm Gladwell's *The Tipping Point*.

Sitting at his desktop computer, Ma called up his Web site. The site enables readers to search for both detailed information about instances of pollution and the regulations by which they can be evaluated. We went to a map of Lanzhou, where I had met Zhao. "See," Ma said, "this allows people to see how close the factories are to the rivers, and how close they are to the communities, so local people can keep an eye on them and put pressure on them to change their behavior." We zoomed in to street level to eye a few factories. "You can see that this is right in the middle of the city, and this is right along the

Chinese environmentalists exhibit an urgency devoid of discernible ideology. Their goal, for the moment, is to clean up China.

river. You can see all of these polluters, and then people can click and see which government document and for which reason it's listed as a polluter, and which conclusions are made by the documents and which river they discharge into."

The key to Ma's endeavor is information. Although the recent laws have made more environmental data available to the public than ever before, it's not always easy for an average citizen to find it. So Ma relies on a legion of volunteers like Zhao Zhong, who hunt down regulations and pollution statistics from various official sources. These are then sent to Ma's team of four staffers and ten volunteers, who feed the information into the online database.

By gathering and publishing this material in one place for the first time, Ma hopes to generate new forms of pressure on polluters. One way is to mobilize citizens. Local people can use the data to monitor factories and lobby them to



Sign of the times:

More than 1,600 villagers signed this petition protesting a chemical plant in Fujian Province, which was suspected of leaking carcinogenic chemicals into the local water supply.

Party hard-liners worry about ceding too much leeway to NGOs. They are quick to recall the role that civil society groups played in the fall of the Soviet Union and its satellites in Eastern Europe.

change their behavior—lending clout to environmental officials trying to enforce the law. Environmentalists have already found that arming ordinary Chinese with access to information can produce dramatic results. In May, the government of the city of Xiamen in the southeastern province of Fujian suspended plans for a lucrative plant that would manufacture a potentially carcinogenic petrochemical. Xiamen residents mounted an effective campaign against the plant, arguing that there was no evidence that city officials had approved the required environmental-impact assessment. Angry residents called the factory an “atom bomb,” and circulated nearly a million text messages in protest.

Ma also hopes that international environmental activists will use the Web site in their ongoing effort to prod multinational companies who care about their brand names but use suppliers who are less fastidious. In this, Ma has a special expertise: earlier this decade he worked as a consultant to international companies on greening their supply-chain management, and served on Coca-Cola’s global Environmental Advisory Board. So far, Ma has reached out to numerous domestic and international corporate executives. Some American companies, such as Pepsi, DuPont, and General Motors, have been unresponsive, but he reported a “very good meeting” with Wal-Mart. Ma has persuaded six international companies whose factories are listed as major polluters to commit to third-party auditing, and a battery factory, operated by Panasonic, to begin construction on a new wastewater facility.

Ma didn’t start out as an environmentalist. In the 1990s, he worked as a journalist for Hong Kong’s *South China Morning Post*, which placed him on an environmental beat. This allowed Ma to travel across China and see “rivers turning to sewers,” he told me. In 1999, he published *China’s Water Crisis*. The book is often compared to Rachel Carson’s *Silent Spring* for the jolt it delivered to public opinion. It also established Ma as an environmental authority. Today, he is one of the handful of NGO leaders whose advice is occasionally sought by government officials. In fact, just a few days before we met, Ma had given a workshop in one of the provinces which was attended by a high-ranking official from the State Environmental Protection Administration (China’s version of the EPA), who spoke about the draft of a new regulation on information disclosure. “It’s very interesting, because in that room it was twenty NGOs from across the country sitting there. And he basically invited everyone to make comments. You know, ‘What is your comment on the draft version? Will this help you, or do you feel like this is not enough? You can make suggestions.’” I asked Ma for the official’s name, but he demurred. Such consultation is relatively new, and still somewhat fragile.

As with all Chinese environmentalists I met, Ma exhibited an urgency devoid of discernible ideology. His goal, for the moment, is to clean up China, and he’s pragmatic and patient about how to accomplish that. For instance, instead of pushing the government to legislate higher environmental



Pipe dreams?

Even if Beijing adopts measures such as carbon caps, these standards will be meaningless unless the government can find a way to convert its edicts into reality.

standards, he's trying to make sure that existing standards are being met. "Right now the site shows all the businesses reported by the government as polluters. So let's keep an eye on them first." He's as eager to work with major companies like Wal-Mart as he is with local volunteers like Zhao Zhong and his mother. "You have to keep in mind that the full kind of Western-style participation will not happen overnight," he said.

For both environmentalists and the government, this is a delicate dance. Hard-liners within the Communist Party worry about ceding too much leeway to groups such as green NGOs. They are quick to remind their colleagues of the role that civil society—human rights groups, labor unions, churches, and, indeed, environmentalists—played in the downfall of the Soviet Union and its satellites in Eastern Europe.

But today's China is worlds away from the Soviet Union circa 1986. The Communist Party in Beijing has maintained its rule precisely because it has permitted some measure of openness. By relaxing its grip on the economy, it engineered a boom that has lifted living standards significantly. The government has also made modest concessions to political participation, with experiments such as closely controlled village elections. China's citizens, especially those in its middle

class, perceive a country in which opportunity is expanding, not shrinking. Because of this, Beijing believes—probably rightly—that it stands on firmer ground than its Soviet counterparts did two decades ago.

Still, no one knows how this peculiar experiment will play out. All that can be said for certain is that much is riding on Beijing's gamble. Not only will it influence whatever political path China may take in the future, but it could determine whether China can find a way to avert environmental ruin. Today, considerable international attention is focused on the question of whether Beijing will commit to specific environmental steps, such as putting numerical "caps" on its greenhouse gas emissions. What most outside observers don't seem to understand is that this question is, for now, largely beside the point. It won't make much difference if Beijing adopts carbon caps unless the government finds a way to convert its edicts into reality. To a great extent, then, hope for a cleaner earth lies with the ability of China's unlikely bedfellows, its mandarins and its environmentalists, to make this experiment work. ^{WM}

Christina Larson is an editor of the *Washington Monthly*. She traveled to China this spring on a fellowship from the International Reporting Project at the Johns Hopkins University School of Advanced International Studies in Washington, D.C.