

Environmental Cultures and Policy Implementation in China

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The Chinese central government has instituted enormous changes in its environmental policies over the past two decades. Military images of the human conquest of nature, so popular during the Cultural Revolution and before, have been replaced by closures of polluting factories, bans on leaded gas, and sales of organic food.¹ China was the first country to produce an Agenda 21 document under the Rio agreements of 1992. It has established an elaborate system of environmental regulations and the agencies to support them. It has staged periodic environmental campaigns, for instance promoting reforestation after the Yangzi River floods of 1998, or opposing pollution of the Huai River by paper factories. It has also allowed foreign and indigenous environmental NGOs to play an active (if carefully delimited) role.

Striking as these changes are, examining actual implementation of these policies exposes a much more complex and ambiguous situation. Farmers in poor areas often illegally open up steep fields, leading to soil erosion. Others will cut down roadside trees

¹ For detailed discussion of environmental attitudes and problems, see Judith Shapiro, *Mao's War Against Nature: Politics and the Environment in Revolutionary China* (New York: Cambridge University Press, 2001); Vaclav Smil, *The Bad Earth: Environmental Degradation in China* (Armonk, NY: M. E. Sharpe,

for firewood, thus removing important windbreaks. Local governments may connive with timber companies in illegal logging, or look the other way as local industry pollutes water and air. Elaborate legal provisions seem to have little effect, and massive propaganda campaigns seem to reach few people.

This essay looks at some successes and failures of environmental policy implementation as the interplay of various environmental cultures as they are realized and reworked in China's specific institutional contexts. I will only briefly refer to the histories of some of these views here, but they include indigenous ideas about nature that continue to influence behavior--from *fengshui* to Buddhist regard for life, from Confucian state responsibility for environmental welfare to Daoist understandings of non-action. They also include a wide range of ideas with Western origins--the environment as a resource through which we can be fruitful and multiply, as a natural entity with its own rights, as an object of sustainable development, and so on). Neither the Chinese nor the foreign traditions are internally unified, and they co-exist now with some strain.

The data I will draw on come primarily from two sources. The first is a survey of environmental behaviors and values among rural households in southern Anhui Province, and the second is more qualitative work in an urban neighborhood of Tianjin.² I will be

1984). For an interesting rejoinder, see Peter Ho, "Mao's War Against Nature? The Environmental Impact of the Grain-First Campaign in China," *China Journal* 50 (July 2003): 37-59.

² Both projects were part of my work with the Harvard University Committee on the Environment China Project. I am grateful to them and to the V. Kann Rasmussen Foundation and the United States Department of Energy for their support. The material from Anhui is based on a collaborative study undertaken with William Alford, Leslyn Hall, Karen Polenske, Yuanyuan Shen, Xiping Xu, and David Zweig. It involved 244 household interviews in rural counties of Anqing City in 1997. See William P. Alford, et al., "The Human Dimensions of Pollution Policy Implementation: Air Quality in Rural China," *Journal of Contemporary China* 11 (2002): 495-513. The Tianjin study relied on the research help of Jiansheng Li,

looking at several important potential mechanisms for implementation of national policy at the grass roots. These include information campaigns and their effects on household knowledge and behavior, the legal system and its limitations, local governance (including both elections and local environmental protection bureaus), and NGOs. Throughout, I will be concerned especially with differences between national and local levels of policy culture--both its production and its consumption. As I hope to show, they tend to vary in openness to indigenous ideas, willingness to be driven by ideological statements, and extent of global influences. The dynamic is considerably more complex than the usual saying that "there are policies above and countermeasures below" (*shang you zhengce, xia you duice*).

Households and Information

In 1996 alone, according to the government, 240 Anhui provincial government offices and 2,376 officials had mounted 1,921 television and other mass media programs, held 128 training courses, and undertaken 340 other activities in environmental "propaganda and education."³ This does not even include the standard school exposure to basic information about sanitation, and required activities like litter clean-ups and tree planting. This was also the year that saw the beginning of the widely-publicized campaign to limit pollution on the Huai River, which led to the claimed closing of over

whose earlier research experience in Tianjin also proved very valuable. These more informal interviews took place primarily in 1999 and 2001.

³ Zhongguo Huanjing Nianjian Bianji Weiyuanhui, editor, *Zhongguo Huanjing Nianjian [China Environmental Yearbook]* (Beijing: Zhongguo Huanjing Kexue Chubanshe, 1996). For more detail, see Alford, et al., "The Human Dimensions of Pollution Policy Implementation: Air Quality in Rural China."

1,000 paper mills.⁴ Much of this activity took place in northern Anhui, just before our survey in the southern part of the same province.

In contrast to what these impressive statistics might imply, we found extremely low levels of awareness about any of these campaigns. Only 12 percent of our sample said they had ever heard about or participated in any environmental campaign, and most of these (n=29) were referring to the ubiquitous tree-planting drives. As another example, most families burnt rice stalks in their fields after the harvest to add to soil fertility and help eliminate pests. Only 36 percent saw this as even relatively harmful to the environment, even though the resulting smoke had forced the shutdown of the municipal airport during our interview period. Even more surprisingly, 63 percent of the respondents did not even recognize the term *huanjing baohu* (environmental protection).

Government campaigns are either not reaching people, or people are ignoring them completely. One reason for this is education--not the overnight education of propaganda campaigns, but the long-term investment in educating the public. Less than half the people in our sample had gone beyond elementary school, and 39 percent had no formal schooling at all.⁵ Studies in general have shown a strong correlation between educational levels and environmental awareness, and work in urban China has confirmed this pattern.⁶

⁴ Mark Hertsgaard, "Our Real China Problem," *Atlantic Monthly*, November 1997, 97-114.

⁵ An even more disheartening 48 percent of women had no education.

⁶ Susmita Dasgupta and David Wheeler, *Citizen Complaints as Environmental Indicators: Evidence from China*, Report to PRDEI, World Bank (1996); Yuan Fang, "The Environmental Awareness of Chinese Citizens: A Sociological Analysis," in *Environmental Awareness in Developing Countries: The Case of China and Thailand* (Tokyo: Japan/Asia Economic Development Institute, 1997).

Part of the problem may also be that the government does not often make its case through arguments that are locally compelling. While our sample had little knowledge about or concern for general problems that do not appear as major influences on their own lives--like global warming or acid rain--they are open to arguments that pollution is affecting their own health and wealth. Government campaigns, however, tend to argue from global generalities. The Anqing Municipal Environmental Protection Bureau, for example, put out a pamphlet for Earth Day in 1999, listing the most important environmental crises. These included global warming, the hole in the ozone layer, acid rain, ocean pollution, nuclear waste, deforestation, erosion, and biodiversity loss. None of these seem salient to the local population.

In contrast, a strong campaign showing the links between lung disease and cooking with biomass or coal, for example, might convince people to switch to other fuels. To my knowledge, however, this has not yet been tried. Another possibility, at least in principle, would be to utilize existing understandings of what Tu Wei-ming has called the anthropocosmic relationship between humanity and environment.⁷ These ideas, based on a balance of the natural energies of the universe, continue to have a strong daily presence in people's lives through the practice of traditional Chinese medicine, *fengshui*, and diet. They do not, however, mesh well with the government's modernist view of science, and there seems little chance of their being picked up in official discourse.

⁷ Weiming Tu, "Beyond the Enlightenment Mentality," in *Confucianism and Ecology*, ed. Mary Evelyn Tucker and John Berthrong (Cambridge, MA: Harvard University Center for the Study of World Religions, 1998), 3-21.

The research in urban neighborhoods of Tianjin paints a rather different picture. Education levels of course are much higher in Tianjin, and so is evidence of increased concern about environmental quality. Even there, however, interviews suggest that people make little connection, for instance, between fuel use and health. When they complain about the environment (which they often do), the issues usually relate to dust and ash from factories that makes their houses dirty, smells and noises that annoy them, or litter left by street vendors. At the same time, mothers of young children in particular often go out of their way to decrease their families' exposure to pollution. Beginning in the very late 1990s, some began to frequent an organic food store and purchase other health foods for their children. They may also buy air purifiers for their houses. For a while there was even a fad for "oxygen bars," where one could breathe oxygen through a mask for a few minutes. Mothers did this especially for children preparing for college entrance exams, in the hopes that it would improve their brain function.

The most striking change, as in many large cities, has been the move from coal to gas for household heating and cooking.⁸ Unlike organic vegetables or oxygen bars, which were driven by market responses to changing environmental attitudes, the fuel change results above all from government policy. Piped gas requires an appropriate infrastructure, which began in the 1980s with some luxury apartments for cadres, and which the government now requires of all new housing. For the city's older one-story housing, however, the government does not plan to retrofit gas. They must still burn

coal. The idea is that these older stocks of housing will rapidly be replaced, and the city will no longer burn coal.

This general transition in fuels has succeeded partly through information campaigns and urban people's greater knowledge of environmental problems, partly through control over infrastructure, and partly through coercion. For example, the Environmental Protection Bureau in Tianjin began close inspections of fuel use in the summer of 1999, to make sure people were following a recent law limiting sulfur content of coal, or prohibiting it entirely in some cases. Offenders were punished and exposed in press releases. The immediate inspiration for this was preparation for the International Gymnastic Championships, to be held in October of that year.

There is, however, a significant gap in this strategy. Like most of China's large cities since the 1980s, Tianjin has experienced two major changes that affect fuel use. One is the enormous increase in sidewalk food vendors, who usually cook on portable, coal-burning stoves. A boiled mutton vendor might consume 25 kilograms of coal a day. The other is a massive increase in the "informal" population of the city--the people usually referred to as migrants or "floating population" (*liudong renkou*) even though many of them are in fact long-term residents. These people come from the countryside or from other parts of China, and do not have formal residence rights. They often work as micro-entrepreneurs (including many of those street vendors) or as labor in the least desirable jobs. Both the vendors and the migrant population represent aspects of the

⁸ The typical family in Tianjin heats for about four months, from mid-November to mid-March, usually in the evening hours. Families with small children or aged parents will heat longer. Average use was about

informal economy that have boomed under the economic reforms, but they also show some of the slippage between policy and practice. The press to substitute gas for coal has ignored all of these people and their activities because they are not part of the official understanding of what constitutes the city. The result is a massive consumption of coal that is largely left out of policy calculations.

The rural hinterland of Anqing City in Anhui and urban Tianjin differ greatly in environmental awareness, which shows most clearly in the high numbers of environmental complaints in Tianjin and the developing market for "green" products; none of this was happening in rural Anqing. Both cases, however, show a similar kind of slippage between central policy and local conditions. In the rural case, information on the environment was being produced, but it was distant from local concerns with economic and physical welfare, and it did not mesh with earlier forms of environmental thinking. In Tianjin, the slippage came instead from the existence of an informal economy that urban planners chose to ignore, since dealing with the fuel issues of street vendors and migrants would have granted them a formal status that China is not now prepared to do.

Legal Techniques

China has been making a serious attempt to develop some form of rule by law, although it is inherently limited by the lack of an independent judiciary. Beijing since the late 1970s has created twenty national laws on the environment, issued hundreds of

national regulations, and joined thirty multilateral instruments.⁹ At the time of our research, China was also in the midst of a major campaign (*pufa jiaoyu*, education to spread the law) to broaden public knowledge of the legal system and to encourage people to use the law effectively.

Nevertheless, we found very little use of legal mechanisms in either Anqing or Tianjin. Only five people from our Anqing sample had even gone to court over any matter, and none of these involved the environment. Only three had ever consulted a lawyer. Only eighteen had heard of the widely trumpeted Air Pollution Law. In informal interviews beyond the questionnaire study, we did find more significant uses of legal mechanisms, especially during a field visit in 1999. In rural Anqing this almost always involved directly economic matters rather than the environment. In particular, people are developing a close concern for the many recent regulations intended to protect them from local governments placing undue economic burdens on them.¹⁰ As one local cadre said, "Our motivation for learning the laws comes completely from the peasants, because we are afraid that the peasants will cause us trouble by knowing more than we do." We found only one case involving the environment, however, which I will discuss below in the section on local governance.

With environmental issues, people in both Tianjin and Anqing seem much more likely, at least so far, to turn to the media or to older political mechanisms rather than the

⁹ William P. Alford and Yuanyuan Shen, "The Limits of the Law in Addressing China's Environmental Dilemma," in *Energizing China: Reconciling Environmental Protection and Economic Growth*, ed. Michael B. McElroy, Chris P. Nielsen and Peter Lydon (Cambridge, MA: Harvard University Committee on the Environment, 1998), 405-30.

newer legal ones. Tianjin's environmental report for 2000, for example, listed 7,031 letters of complaint about environmental issues to local government offices.¹¹ District level offices had also written 135 letters to the Mayor's office in support of some of these complaints. People said they preferred this kind of direct administrative appeal to the courts because they felt the courts would support entrenched economic interests (generally tied to local government offices, which also appoint judges).

Local judges also complained that the laws and regulations, in spite of the elaboration and publicity, were also too general to guide their decisions. Some legal scholars agree that, as the product of a difficult compromise between environmental and economic interests, the law is often ambiguous and occasionally contradictory.¹² Many of these laws and regulations also set a standard so high that local officials responsible for enforcement simply cannot meet the letter of the law. The laws may serve as statements of ideals, or as evidence of meeting treaty obligations, but may be compromised beyond recognition in the implementation process. Perhaps in the long run the increasing use of the courts for purely economic disputes and protection of farmers' rights will expand into a legal culture where people are comfortable with the idea of using lawyers and courts, and where the legal structure provides a useful mechanism for helping control environmental problems. For now, however, people continue to show a

¹⁰ See Jonathan Unger, *The Transformation of Rural China* (Armonk, NY: M. E. Sharpe, 2002), 213-16.

¹¹ Of these, 41% concerned noise pollution, 41% concerned air pollution (mostly from coal), and 11% concerned water pollution.

¹² Alford, et al., "The Human Dimensions of Pollution Policy Implementation: Air Quality in Rural China," 509. Although there were many co-authors, including me, this passage represents the work of William Alford and Yuanyuan Shen.

strong preference for strictly political solutions to environmental problems, and only rarely invoke the law.

Local Governance

Two major changes in local governance might also be expected to enhance implementation of environmental policy on the ground. The first is the increase in local self-government--open elections for village committees and increased autonomy for urban neighborhood associations. The second is the expansion of the environmental protection bureaucracy over the last two decades. The political mechanisms for monitoring and controlling environmental issues have increased enormously, with Environmental Protection Bureau offices established at all provincial, cosmopolitan, and prefectural levels, and at least nominally in all counties.¹³ In both cases, the innovations have led to some increased implementation ability, although both cases also illustrate inherent structural limits.

Local elections have attracted by far the most attention, even though they remain at the least important levels of government, because they are such a departure for the People's Republic. They appear in large part to be attempts to weed out corrupt and incompetent local leaders without the political and economic costs of direct supervision from higher authorities. In principle, they should also help foster a local leadership that is more sensitive to local priorities, potentially including the environment. All villages in our study area in Anqing held regular elections, and in some cases these were hotly

contested. Some of the local people estimated that candidates for village head might spend as much as 5-10,000 yuan on their campaigns.

In spite of this, our survey does not provide much cause for optimism for the influence of local elections on environmental behavior. Only about a third of the sample had voted (82 of 244 people), and 54 percent told us that they were "not interested at all" in the elections. The lack of enthusiasm reflects the widespread opinion that these officials have little independent power, and that they serve primarily as conduits for higher levels of authority. More than two-thirds (168 of 244 people) felt that elections had no actual effect on village affairs. Similarly, only 10 percent had ever attended a village committee meeting, and most of those reported that they did not speak. Most felt that village level officials are concerned primarily with the birth control, taxation, and education. These are all issues promoted heavily by township and county-level cadres, whose promotion chances rely heavily on their performance in these few areas. Village-level elections thus appear to have little effect on environmental behavior, and this is unlikely to change unless local government either becomes more genuinely independent of the central state, or unless the higher authorities make the environment as important an issue as revenue generation and birth control.

The situation in cities is quite different. The closest things to village councils are local neighborhood committees (*jumin weiyuanhui*) and street committees (*jiedao banshi*)

¹³ In some counties, a single official takes responsibility for environmental issues as just one of several responsibilities.

chu).¹⁴ In Tianjin a neighborhood committee typically includes about 400 households. The committee itself is usually 5-7 people, who are often retired cadres given a small monthly stipend to help implement policy on the ground. While there may be a facade of elections, these people have generally been chosen by higher levels of government. Street committees are more comparable to township-level government in the countryside, and usually include about 20-25 neighborhood committees.

With the reforms of the 1980s and 1990s, the role of these groups has changed considerably, and one of the major changes has been to make them more responsible for their own finances. Neighborhood and street committees thus often start their own enterprises, or rent their office space out to factories. By the mid-1990s, these units stood to gain little from promoting environmental issues. Like township governments at the same period, they had a strong economic incentive to ignore both polluting industry and citizen complaints about the environment.

In one Tianjin district, for example, residents complained about piles of coal ash from several nearby factories in the late 1990s. The factories were storing the ash for a few days at a time on a local street. The wind tended to scatter the ash, especially in the winter, getting into the surrounding apartments and a local elementary school. The street committee at that time took no action, however--they were charging the factories to use the site, and using the income for bonuses and travel. Without local political support for the complaints, the municipal Environmental Protection Bureau also took no action.

¹⁴ For work on neighborhood committees in another context, see Benjamin L. Read, "Democratizing the Neighborhood? New Private Housing and Home-Owner Self-Organization in Urban China," *China*

Neighborhood and street committees have also tended to support street vendors who often burn a lot of coal, because they pay licensing fees.

This general situation in the 1990s typified both rural and urban areas, where economic incentives far outweighed environmental policy implementation for local leaders. In Tianjin, however, our interviews indicate that the situation has been changing. By the year 2000, the very same street committee had set up a 24-hour environmental hotline to hear complaints from citizens. They guaranteed that someone would arrive at the polluted area within five minutes, and that they would take action within a day.

While this change in attitudes may have something to do with the general increase in environmental concerns among the general urban population, it probably more directly reflects a new emphasis in central policy. This was just the same time when Tianjin and other cities began to enforce new law about coal burning and the use of unleaded automobile fuel. Unlike the countryside, where such changes have not been very much in evidence, China's government has decided to clean up the most glaring urban environmental problems, and this has led to a happy coincidence of popular environmental thought with central policy.

At about the same time, the government significantly strengthened the independent power of urban Environmental Protection Bureaus. Their new efficacy in addressing at least some pollution concerns helps explain the rash of complaints they received in 2000, as I mentioned above. The enormous expansion of the environmental protection

bureaucracy, which now has ministerial status at the highest level and ideally extends down to every county at the lowest, is one of the largest changes over the last two decades. In principle, this has created for the first time an arm of government that will monitor the environment and enforce policy.

In practice, however, this mission has often been compromised. At the lowest level, the career trajectories of environmental officials tend to tie primarily to how well their county meets its primary political goals. These goals are currently defined overwhelmingly in economic terms, and low levels of central financial support have forced many counties to look for money in any way possible.¹⁵ Especially during the heyday of township and village enterprises in the 1990s, low-level environmental bureaucrats simply could not afford to alienate industries that were producing their incomes. They also had little incentive to promote programs like changes in household fuel use, for which they lacked the infrastructure. While they did have the power to collect fines for pollution, they often had trouble collecting these funds, and then lost control of the income as it was funneled into other local projects.¹⁶ The kinds of major new political directions that led to greater power for environmental officials in large cities in just the last few years have not taken place in rural areas, where the fiscal struggle still overwhelms other issues.

¹⁵ For more detail, see Unger, *The Transformation of Rural China*.

¹⁶ Abigail R. Jahiel, "The Contradictory Impact of Reform on Environmental Protection in China," *China Quarterly* 151 (1997): 81-103.

As an illustration, let me summarize one of the rare environmental lawsuits in Anqing.¹⁷ The plaintiff, a Mr. Gao, had contracted about 10,000 mu of a lake in one of Anqing's rural counties in 1998; he was raising crabs. In 1999 he claimed that the water was severely polluted by leakage from a nearby factory that processed waste oil from one of urban Anqing's refineries. He put his personal losses at 600,000 yuan, in addition to the pollution flowing down into the Yangzi River. He had the county Environmental Protection Bureau test the water in late June of that year, which in fact showed elevated levels of oil. Nevertheless, they concluded that no harm had been done, and they refused to act. Mr. Gao argued that most of the pollution had dissipated by then, and that the sample was taken from very deep water. He pushed his complaint further, first to the municipal Environmental Protection Bureau, and then with petitions to nearly every level of the municipal government. In his letter, he blamed the negative decision at the local level on the fact that the factory pays the county 800,000 yuan in taxes each year. This was also the point when he sued the county-level Environmental Protection Bureau. Perhaps under his leadership, the local village also submitted a petition complaining about the factory, and asking for 1,000 yuan in compensation for each villager.

Unfortunately, the case was not resolved when our project ended. Nevertheless, even unclosed it illustrates many of the dynamics that typify environmental policy on the ground: a local environmental protection bureaucracy closely tied to the economic interests of the county government, some difference of interest between different levels

¹⁷ The materials were collected by Li Jiansheng in 1999, and include copies of the law suit, the county Environmental Protection Bureau report, and various petitions from the plaintiff and local villagers.

of government, and the overwhelming importance of purely political mechanisms like petitions.

The Role of NGOs

China has become far more open to the potential role of non-governmental organizations (NGOs), especially since the United Nations Fourth World Conference on Women and its associated NGO Forum on Women, which took place in Beijing in 1995. The legal structure allowing for "social organizations" (*shehui tuanti*) was developed in the 1980s. It led to an immediate boom even though the law set restrictive standards of government supervision and political freedom. It was in essence a classic corporatist vision, where each social group would have one representative body, which received a monopoly on the position in exchange for its essential loyalty. The law was tightened still further after the Tiananmen protests of 1989, and then after the Falun Gong crackdown in 1999. Perhaps as many as a third of NGOs lost their registration in the early 1990s.

Nevertheless, the numbers of groups have grown rapidly again since then, and they are less thoroughly controlled than a look at the legal framework might imply. For instance, some groups simply avoid the stringent registration procedures. They either remain informal and unregistered (risking repression in principle, but generally allowed to continue in practice, at least as of now, if they remain local and apolitical), or they

register as some other kind of group. Global Village Beijing, for example, is registered as a business although it functions as an NGO.¹⁸

Some of China's most visible NGOs specialize in environmental issues. This includes both international NGOs like WWF or The Nature Conservancy (both very active in China) and indigenous groups like Global Village Beijing or Friends of Nature. These groups have some important accomplishments, including preservation of endangered species, protecting habitats from deforestation, and providing media outlets for environmental complaints. None of them, including the international ones, can afford to take strongly adversarial positions against the government. They can, however, use existing laws and policies to create pressure against local economic interests in specific cases.¹⁹

While I do not have space to go into any detail, two features of the environmental role of NGOs stand out. First, environmental organizations tend to have very little depth. They exist above all in Beijing, with branches in areas where they may have projects. In a survey of registered NGOs in Xiamen and Guangzhou, for instance, there were neither significant local environmental groups nor branches of the major national ones.²⁰ At the other extreme, we have frequent reports of local groups protesting environmental

¹⁸ For more detail, see "Civil Associations and Autonomy under Three Regimes: The Boundaries of State and Society in Hong Kong, Taiwan, and China," ms.

¹⁹ See, for example, Ralph Litzinger, "The Mobilization of "Nature:" Perspectives from Northwest Yunnan," paper presented at the International Workshop, "Open Up the West: China's Regional Development Policy," Hamburg, Germany, 2003.

²⁰ Robert P. Weller, et al., *Dangdai Huaren Chengshi Shehui de Minjian Zuzhi: Taibei, Xianggang, Guangzhou, Xiamen de Bijiao Fenxi* [Civil Associations in Contemporary Chinese Urban Societies: A

problems--as with the villagers' petition in Mr. Gao's legal case.²¹ These groups, however, always remain small, local, and ad hoc. Anything larger will be repressed. The nature of state control has thus encouraged a bifurcation of social organizations, with a few large, centralized, formally organized and officially recognized groups at one end, a large numbers of small, parochial groups based on informal relationships and face-to-face contact. There is little space left for anything in between.

The second feature is a mismatch of concerns between these national or international NGOs and local people. The large NGOs are typically environmentalist in the strict sense--trying to preserve the environment for its own sake. This is rarely a driving local issue, however. Melinda Herrold, for example, shows how little support local people gave to a nature reserve set up to protect black-necked cranes and some other rare migratory water birds. As I have argued, endangered species protection has little local salience either economically or culturally. More recently, however, external supporters of the preserve (including the provincial government and several U.S.-based NGOs) have begun to use it as a way of channeling development funds to the local people. This has led to significant improvement in local support for the preserve.²²

Comparative Analysis of Taipei, Hong Kong, Guangzhou, and Xiamen], Occasional Paper No. 123 (Hong Kong: Chinese University of Hong Kong, Institute of Asia-Pacific Studies, 2002).

²¹ For a more detailed study, see Jun Jing, "Environmental Protests in Rural China," in *Chinese Society: Change, Conflict and Resistance*, ed. Mark Selden and Elizabeth J. Perry (New York: Routledge, 2000).

²² Melinda Herrold, "From Adversary to Partner: The Evolving Role of a Nature Reserve in the Lives of Reserve Residents," paper presented at the Annual Meeting, Association for Asian Studies, New York, 2003.

Conclusion

This brief survey of various mechanisms to implement environmental policy shows a mix of successes and failures at the intersection of various levels of government, varying understandings of the environment, and competing interests. The idea of policies from above and countermeasures from below captures some important elements of this dynamic. Yet it also simplifies too much by reducing the complex interactions of different political levels and institutions to just a dyad (the state and the people, or the central and the local) and by assuming a level of explicit consciousness that underestimates both unspoken cultural assumptions and unintended consequences.

A distinction between center and local is a useful first cut. The evidence on NGOs in particular shows a gulf between a national level and a local level. The national-level groups tend to interact closely with global environmental concerns with strong roots in North American and West Europe. Local groups are motivated much more by economic and personal concerns (Mr. Gao's crabs, dust in Tianjin apartments); they also have fundamental political limits on their abilities to organize and expand. A similar split shows up in the Anqing Environmental Protection Bureau's concern over the ozone layer and global warming (both promoted by globalizing environmentalism), even though these issues seem to have no appeal to most villagers in the municipality. It shows up again in the elaborate environmental legal code formulated in Beijing, which is too unwieldy and exotic to implement on the ground in most places.

Many of these central initiatives, both from the government and from NGOs, represent a kind of idealism that does not quite mesh with realities on the ground.

Unimplemented legal systems are really just statements of ideals, and so are environmental education campaigns that never seem to reach anyone. In a sense, the Tianjin fuel use policy that ignored the unpleasant reality of the migrant population is another way of creating a policy of ideals instead of one that responds to the situation on the ground. County-level Environmental Protection Bureaus are yet another example of a structural change that cannot achieve its ideal, because they are not independent from other county-level needs, especially income generation. Purely political forms of protest like petitions and letters to higher levels of government will continue to dominate over the law or elections because these forms accept the reality of a local government with no real separation of powers.

Even this simply binary between center and local is too simple, though. Mr. Gao's case already shows a complex interaction between local villagers, various economic interests (the polluting factory, the refinery it did business with, Mr. Gao himself), county-level officials, and municipal officials. The changes in environmental behavior of the Tianjin street committee also show multiple levels, with factories, local residents, varying market pressures (for oxygen and organic food, but also for polluting street food), and changing government policies. Other kinds of studies would surely show the same complex dynamics moving up to provincial, national, and global levels.

Finally, environmental policy (perhaps all policy) anywhere must face unintended consequences--failures of science to predict effects accurately, failures to understand or face up to local social and political dynamics, failures to recognize one's own assumptions. The idea of policies met with countermeasures implies a process of rational

confrontation of conflicting ideas, but much of what we have seen involves interests, motives, and assumptions that may never become explicit or conscious. National NGOs, legal scholars, environmental scientists, county cadres, urban neighborhood committees, and local villagers differ in more than just their fuel use strategies. They vary even in how they understand the relationships between humanity and environment, between state and society. By ignoring this, environmental policy on the ground in China has evolved into a set of mixed messages, with little effective feedback that might lead to more sensitive adjustment of policy to local needs.