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Prospects for the Future

In only a few generations, China has undergone a transition that now touches every conceivable facet of the country, including the government, the people, civil society, and even intangible cultural characteristics such as identity and tradition. China's rapid economic and much slower political “openings” have drastically changed the landscape, both physically and metaphorically, in ways that could not have been imagined a few decades ago. As we look at present-day China and wonder about the future of its environment, it is easy to be overwhelmed by the enormity of the country's strengths and challenges. How do we begin to draw conclusions? What is the path forward?

From the exposition and analysis in the preceding pages, one fact is clear: China's environment is beset by numerous interconnected and countervailing forces and pressures. This book has attempted to analyze the trends on the ground today, outline the challenges the country faces, and describe where the government and society are facing setbacks or making advances. We have examined the environmental challenges posed by many aspects of China's present situation, including its astronomical growth, the evolving role of the state, and the emergence of civil society. At the same time we have seen that progress toward a sustainable future is hampered by an East-West divide, unequal access to resources, corruption, lax enforcement of regulations, and unresolved and often unacknowledged ethnic conflicts. Even the progress made by middle class and green activists can be illusory if the environmental problems that are tackled in one region are simply exported to another region of China, or another country entirely. These themes intersect and overlap, complement and reinforce, exacerbate and diminish one another in complex ways. To understand one, we need to understand them all.

Consider, for example, the demographic question. Discussion of the country's population size was politically taboo during the Mao years, but since then both government and society have openly acknowledged that it is a powerful constraint on China's development. While debate continues about the growth of the world's most populous nation – including the effect of relaxations of the contentious One Child policy – the sheer number of people and their demands are a powerful force limiting China's choices. At the heart of the country's development is the struggle to bring wealth and comfort to more than one billion people, generations of whom have lived in poverty. One cannot overstate the pressure that this scale of poverty brings on leaders' decision making. Certainly, China has been able to take advantage of globalization, becoming a manufacturer to the world and expanding its economy drastically. The chances are good that anyone reading this book has something made in China within arm's reach at this very moment. However, with this rising wealth, China's new middle class now demands clean air and water even as its material desires spell trouble for the environment, a contradictory impulse that is not easy for government leaders to accommodate.

The primary response of the government to demands for better living standards has been
liberalization and decentralization of economic controls, yet this causes an immense quandary for China’s authoritarian state system. Yes, loosening economic restrictions has created conditions for spectacular growth, lifting millions out of poverty. The central government ceded some of its power in a bid to expand the economy; in essence, the state was able to catalyze China’s economic turnaround precisely because it had such top-down control to relinquish. However, the “economic miracle” that raised incomes and the national GDP is now also a curse, as the state struggles to limit further destruction of China’s natural resources and to begin to clean up the mess generated by decades of environmental abuse. Officials have recognized growing levels of environmental harm – stemming partly from a sense of lawlessness among middle-level officials and industrial leaders – and they have instituted world-class environmental regulations. However, these laws are poorly enforced and the de facto reality remains woefully behind the ideal. This implementation gap stems at least in part from a political and social conflict between Western-style economic growth and a healthy environment. For example, deforestation is understood as a problem that creates erosion and flooding at home; the government bans logging in sensitive river headwaters but simultaneously fosters a manufacturing sector that supplies the furniture needs of consumers an ocean away. Thus, the government essentially looks the other way as domestic forests continue to be cut and as timber enters – often illegally – from ravaged forests in Southeast Asia, Russia, and Africa. Water use is a similar arena where the state appears torn between conflicting goals. The massive South-North water transfer is an example: Intended to relieve water shortages in the Northeast, the project has caused dislocation and hardship for local populations and, activists argue, could create environmental problems and increase tensions with surrounding countries whose major rivers will be affected by the plan if the Western route is built. What is more, beyond its borders, China has largely refused to cooperate in regional, transboundary management schemes such as the Mekong River Commission.

The juggernaut that is globalization is the force behind many of China’s environmental woes. But globalization can also be a source of hope and a stimulus for innovation. China continues to make strides in developing and producing clean technology; in particular, it invests heavily in areas like solar and wind energy, clean car technology, and desalinization plants, positioning the country to reap profits in the global economy in the future. Perhaps this represents an alternative, realistic path for the future development of China, one where economic and environmental incentives could align. We can see evidence that China is moving in this direction as Chinese civil society groups exercise their new rights to participate in environmental decisions, express their views in the media, and take part in demonstrations, even at times with the blessing of the government. But even as these civil society actors assume a more significant role, their size and effectiveness remain constrained. The Chinese Communist Party remains concerned about unrest that could challenge central authority, and so it closely monitors and controls social movements. Recent history for China has included dark periods of isolation. The openness mandated by a globalized society and modern Internet communication is still viewed with a wary eye, as the government attempts to regulate the flow of ideas while remaining open to the world. The state is in essence performing a high-wire act, balancing the need for centralized control and the suppression of protest against the need for more public participation, more transparency, and greater reliance on the rule of law. A
particularly interesting area to monitor for signs of progress in this direction will be the evolving judicial system; its independence will be challenged as civil society begins to test environmental laws and their new rights through the courts. Meanwhile, NGOs must tread carefully, asserting their rights, voicing grievances, and lobbying officials and the media without angering the state so much as to provoke a crackdown.

Emerging civil society also faces questions about its own ability and intent, as it intersects in unusual ways with China's changing demographics and economy. A newly empowered middle class is beginning to demand more of the government with respect to food safety and pollution. The middle-class Chinese environmental movement is growing, as evidenced by the frequency of mass incidents protesting pollution and harmful development. Urban leaders are under intense pressure as community groups and loosely organized citizens confront officials and businessmen; some measure of justice has been meted out on the corrupt elite. At the same time, these demands also stem from broader popular desires for more consumption and affluence, which promote a lifestyle that contributes to environmental degradation. So, while ENGOs press the government for action, they also need to do some soul searching. Can the environmental movement advocate an alternate path and still draw support from a middle class that at times is focused on material wealth and conspicuous consumption? Successful protests against polluters may shut down a factory, only to cause it to relocate in a more marginal, less powerful community. Severe environmental problems are occurring in ethnic minority communities on the periphery of the country, where a grab for resources is thinly disguised as a development program. In these hinterlands, poor people will increasingly bear the heaviest burden of climate change, yet these communities already suffer racial and class prejudices from the dominant Han. China's burgeoning environmental movement must find a way to balance the desires of its urban support base and wider ideals of environmental justice.

A clear case can be made that the national government – or some parts of it – is inching toward a greater alliance with the green movement, as part of an overall trend toward an expanded civil society and rule by law. Top government officials have recognized that cleaning up the environment requires a combination of stringent legislation, transparent standards and practices, robust institutions, well-defined rights, a democratic process, encouragement of public participation, and engagement with the media. As Qu Geping states in the documentary “Waking the Green Tiger,” environmental regulation in any part of the world requires, “supervision from the bottom up.” Top-down efforts are important, but some form of green democracy is essential. Additional reforms are needed to encourage such groups and give them more breadth, depth, clout, and legal protections. Western students, activists, organizations, and individuals can find more ways to engage with and support these groups, who have a tough task as they attempt to shift powerful forces toward a different path.

Chinese people have powerful motivations for improving the quality of their lives. The older generation has not forgotten the days of extreme poverty, grueling labor, and sacrifice in the face of famine and death, while younger Chinese are eager to join the world and enjoy their lives. But we can see a cultural complication in China's development and use of its natural resources that stems from the country's national identity and genealogical story of a homogeneous culture that was once the envy of the world. Woven into the cultural fabric of the
nation is pride in its former status as the vaunted Middle Kingdom. Neither consumer nor political choices can be divorced from the burden of generations of ingrained insecurity about China's global stature. Today, Chinese strongly desire to reassert status – to gain face, as it were – and finally have the means to do so, having benefited from China's economic transformation and the forces of globalization. Yet this insecurity may also threaten to overheat the economy, overwhelm the environment, and promote ruinous consumption. Incentives to correct course are not readily available when that harm is displaced – to the margins of communities, to rural areas, to the periphery of the country, or outside its borders. We see this preoccupation with face materialized in the predilection for grand construction projects and development. Some of these developments can be understood as legitimate ways to expand a developing economy and alleviate poverty, but others come with tremendous environmental costs. How such tensions are resolved can have grave consequences for the environment and human security, as we have seen in the construction of the controversial Three Gorges Dam and the transfer of water from the Yangzi to the Yellow Rivers. Again, here we wish for an alternative path for China: Can the country pursue prestige and power by leading the way in sustainable development and technology?

A long history of public distrust of central authority also frustrates the government's ability to address challenges. Chinese citizens have a history of circumventing and subverting regulations through bribery. The traditional practice of respecting hierarchies and of seeking relief through the influence of someone more powerful dates back to the time of the emperors. This tendency was exacerbated during the Mao years and during the reforms that followed. During Mao's time, private property and personal wealth were abhorred, and individual citizens had few opportunities to inflict personal damage on the environment. The extensive damage that did occur, as Mao sought to “conquer nature,” was directed from the top down. After 1978, when Deng Xiaoping embraced the slogan, “to get rich is glorious,” the grip of the state relaxed; but there were few mechanisms to prevent China's venal new entrepreneurs from “looking for money in everything” and exploiting resources and dumping wastes. Regulations, when they were issued, were circumvented. In the old days it was the emperor who lived far away, and was unable to enforce edicts. In the new China, it is the bureaucrats who are distant and ineffectual. Even as law enforcement is gradually given teeth, this dynamic still gives rise to intense pollution of public lands and waterways and high-profile incidents like the 2008 melamine scandal and the 2015 Tianjin chemical explosions. Individuals and small factories are not the only ones to avoid regulation. Even China's largest corporations, like Huaneng and Huadian Power, have been repeatedly fined for failing to obtain environmental permits before constructing dams in the Upper Yangzi watershed.

Asserting the rule of law and creating an ethos where Chinese citizens feel empowered to help preserve and enjoy a clean environment will require enormous effort. Ancient and traditional beliefs and institutions – Confucianism, Daoism, and Buddhism – may provide some guidance. They each speak to the need to promote sustainable relationships, harmony, and respect for the non-human world. But for many young Chinese who find themselves cut off from the past, and who grew up in an intensely materialist and non-religious country, these traditions carry little weight. Fortunately, other traditions can be invoked. Environmental groups emphasize a love of
nature for its own sake, encouraging nature walks, photography, tree planting, and preservation of wild lands, rivers, and animals. The scientific evidence for the causes of our environmental crisis speaks loudly in a country that values education, technical solutions, and economic prosperity. Social justice, distributive justice, the rights of individuals and minorities, and the desire to project China as a leading and positive force in the world are also powerful sentiments that underpin communist ideology and form a patriotic identity. If these new convictions and older traditions are combined, could they prevail in the face of corruption, materialism, and a central government deeply suspicious of political and social movements? Some activists and even officials suggest that it is possible and inevitable, because the alternative is unsustainable.

Finally, we must consider the complex challenge posed by the East-West divide. Vast areas of western China, home to rural peasants and ethnic minorities, remain relatively untouched by the modernization and growing wealth of the East, despite the government push to create new urban metropolises that will stimulate the largely untapped consumer market there and fuel China's economic growth. The China of Beijing or Shanghai is a vastly different place from Tibet, Xinjiang, or Inner Mongolia or even the rural farming areas of the country. In these areas, life has changed little overall and in some places basic needs remain unsatisfied. Residents remain excluded from much of China's development, disconnected from the country's gleaming cities and rise to prominence. The sheer numbers of poor give impetus to the state's growth and development targets. But the poor tend to benefit least, as wealth trickles too slowly from the urban megalopolis to the rural village, and income inequalities worsen with every passing year. When we take a closer look at these regions, we suspect that government attempts to “develop” infrastructure are often no more than strategies to extract natural resources at the expense of a marginalized population. Development campaigns, and even some environmental campaigns like the restoration of the grasslands discussed earlier, may also result in the dislocation of minorities or enforced assimilation as entire communities are broken up. Meanwhile, as pollution protests in the wealthy East grow stronger, much environmental harm is simply displaced to the periphery. In some cases, this practice undermines the government's legitimacy and fuels ongoing struggles that threaten China's stability.

Although the evidence presented in this book does not suggest that China has reached a point of no return in terms of environmental degradation, taken together, the environmental challenges suggest that China, its government, and its people will have to grapple with a long list of questions as they attempt to build what they call a harmonious and sustainable society:

- What is the ultimate goal of China's economic development model? Can the country afford a trajectory modeled on that of the West? Can the rest of the world afford it?
- Where does the state fit into the picture of environmental governance? Does the state have the political will or ability to eschew a growth-at-all-costs mentality?
- What is the path ahead for China's home grown, if nascent, environmental movement? Can it be inclusive without compromising values? Who does it ultimately represent? Can it challenge the government and business interests effectively? Can it form and maintain
useful relationships with the international environmental movement?

- Can the Chinese people search their souls during their quest for an improved quality of life? Can they avoid the excesses of the Global North that displaced so much environmental harm onto the developing South? Can they collectively choose an alternative development model that might rest on post-materialist values emphasizing fulfillment and the construction of a meaningful life rather than material consumption?

- Is China's model addressing broad issues of injustice and oppression of poor and minority voices? Or is this economic model only contributing to further exploitation of those who live at the margins and beyond China's borders? What would greater inclusion mean for China and its people?

- Where does the international community fit in? Where does China fit into the international community? If the environment is truly a global issue, does the world not have a responsibility to China and vice versa? What lessons does China have to offer the rest of the world? If China is greening itself, is it doing so at the cost of vulnerable populations elsewhere?

Answers to these questions will not come easily. Complex challenges within China overlap and intersect in ways that rule out quick fixes. And while there are clear reasons for hope, time is running short. As we have seen in the preceding chapters, the choices China is facing are extremely difficult. There is huge pressure for China to continue on its current path of rapid growth coupled with environmental degradation, both within and beyond borders. The ability to shift course is constrained by historical and cultural baggage that puts the emphasis on global recognition and conspicuous consumption.

There are encouraging signs that a shift is under way, with greater confidence in the legal system, increased public participation and information transparency, and broad recognition that development that chokes and harms is undesirable. Significant forces are working tirelessly for greater attention to and emphasis on sustainability, including within the Chinese state system. As we have seen, China and the world are so intertwined that what happens in China not only impacts all of us, but what all of us do has an impact in China. Through our buying habits, political action in our home countries, information sharing, and other choices that we make every day, we can join with those in China working for a sustainable future. Yet if China's policy makers, corporations, and politically powerful middle class, along with other global actors and each one of us through our individual decisions, continue to displace harms onto yet more vulnerable populations and future generations, then joined together as we are as a planet, we will continue to accumulate debt that can never be repaid.

Final Thoughts

Here are a few reflections with which to conclude this investigation of China's environmental challenges. Today, we know much more than we did even 30 years ago about the dynamics of the global ecosystems that sustain us. Wherever we live, we are connected to China, and to each other. We share air, water, food, oceans, wildlife, agricultural harvests, and toxic wastes.
We are dependent on each other for the food, shelter, and the material objects that make our lives more comfortable and interesting. We have learned, slowly, to recognize the priceless and invisible services that our ecosystems provide, from water purification to carbon fixation to pollination. We understand the importance of the variety of life species, from charismatic megafauna like Siberian tigers and pandas to the humble and tiny sea creatures that build the reefs that nurture the fish that feed us. With and without religion, we have been able to find inspiration and renewal in the natural world. As communities, we find meaning in our greater understanding of the capacity of all creatures, human and non-human, to communicate and to seek lives free from suffering. Yet we also urgently mourn our losses: the disappearance each day of the last surviving member of a species, the rapidly melting polar ice sheets and sea-level rise even more dramatic than first feared, the noticeably more frequent severe weather events such as droughts and cyclones.

We feel deeply uneasy at the apparent inadequacy of the state system to deal with global and transboundary challenges such as climate change or the illegal trade in endangered species. Where treaties have been signed and ratified, weak implementation and enforcement suggest that the agreements are unequal to the magnitude of the challenges we face. We understand that the predictable and progressive collapse of ecosystems and degradation of the global environment within the lifetimes of those already born are linked to the inability of national governments to act, to an exploding human population, and to a relentless economic globalization that unleashes forces difficult to control. The world’s thirst for limited natural resources like fossil fuels, minerals, timber, and fish has sparked fierce international competition and new sources of conflict. This is the “resource curse” that sometimes turns developing nations into battlefields for external powers and multinational businesses competing for access to the materials to feed economic growth and profits, often at the expense of local populations and the environment.

We recognize that there is something profoundly wrong with the way we are doing business as a planet. We need to reject the drive for economic growth at all costs and establish a different concept of security – human, state, and global – that is linked to respect for the limitations of the planet’s non-renewable resources. As the United Nations Environment Programme argues, we must “decouple” the planet’s quest for prosperity from its unsustainable use of resources (Fischer-Kowalski and Swilling 2011). We must also understand that the “ecological footprint” of a nation can be correctly measured only by considering international as well as domestic extraction of resources; so too with the disposal of pollution and toxic waste. All environmental problems are ultimately globally shared – we can neither export them nor build a protective wall to keep them out. We need to create the political space to allow countries like China to perform better, to satisfy them that developed countries are doing their fair share to deal with the problems for which industrial societies are primarily responsible. At the same time, the world needs to do more to help developing countries to curb some of the worst impacts of the pollution and climate change that will ultimately be felt most sharply among the world’s poor. In international environmental law, this concept is enshrined in the principle of “common but differentiated responsibilities,” which acknowledges that we have a shared interest in dealing with the globe’s enormous environmental challenges, but that the developed
world needs to go first to resolve the problems. It also needs to help the developing world to pay for its transformation to a cleaner, more sustainable development model. The “right to development” is also a powerful principle of international environmental law, and the globe must find ways to respect this. China could, indeed it must, be a modern laboratory for designing a new path. As we have seen, China holds a special place on the world environmental stage. In so many ways, China's route to the future will be that of the planet.

China observers these days often fall into two camps: critics and apologists. Yet this book has called for a more nuanced response. Outsiders dealing with China must see the whole picture, good and bad, and think strategically about how to boost the promise and minimize the peril. The concepts around which this book has been organized may help readers in the developed world to reflect on how we can support China in this effort. As for Chinese readers of this book, I hope that a perspective that draws on the concepts and perspectives from the outside world may be useful for building alliances and considering China's enormous environmental challenges afresh.

In terms of governance, we can support the actors within the central government who are trying to “green” the country's administrative patterns by acknowledging and praising them in international forums, providing and welcoming international expertise to help them craft win-win solutions that will gain wide acceptance by the laggards within the bureaucracy, and strengthen their efforts to spread rule of law by continuing the academic and governmental exchanges that have already borne so much fruit. We can remove obstacles to the transfer and dissemination of clean technology and create strong international mechanisms to help China, and the rest of the developing world, avoid exacerbating the global environmental crisis for which we in the developed world are largely responsible. In terms of national identity, we can engage in the discussion by sharing resources about other nations' struggles with these questions, including Chinese scholars in debates about culture and sustainability, and encouraging and facilitating publication in Chinese of relevant books and documents. We can try to foster a sense that an international community is together searching for ways to shift human culture from one of exploitation of nature to one of respect and care. In terms of civil society, Chinese citizens' groups can benefit from opportunities for their leaders to travel overseas to network with their peers, attend international negotiations, study abroad, and obtain resources to fund their activities. We can also support those who have been subjected to political repression by raising their names in international forums and encouraging the Chinese government to permit more space for free expression and public participation. Finally, in terms of equity and the displacement of harm, we can all become more sensitive to problems of environmental justice across time, space, and species, by considering the impacts of global consumption patterns on resource extraction and waste disposal, and understanding more clearly how the negative externalities of these activities tend to harm the most vulnerable, both human and non-human. While awareness of the ethical dimensions of our behavior will not in itself shift us away from destructive patterns, it may bring to light what has been hidden and make it more difficult to pursue the old ways.

True security will come not from foreign wars or expansion of overseas influence in an effort to secure the last few generations' worth of the earth's treasures. Rather, it will come from
tapping energy and using products derived close to home, through the wide-scale adoption of renewable technologies and reusable materials. In national planning, all countries must strive to move toward what ecological economist Herman Daly (1996) has called a “steady-state economy,” while making allowances for countries that cannot yet do so; in production, they must move toward what architect William McDonough and chemist Michael Braungart (2002) call “cradle-to-cradle” lifecycles, such that once taken from the earth, resources can be used over and over again, forever.

Making this transition will take tremendous political will and effort. It will require leadership from China, the U.S., and Europe, from developed and developing countries, from the Global North and the Global South. It must come from each individual, from each community, from each province, and from each nation. The goal is development that truly benefits all citizens, with healthy air and water, rich forests and jungles that are home to a biodiversity of animals, plants, birds, and insects, urban parks where citizens can reconnect to nature, and human lives whose meanings are measured not by material consumption or possessions but by compassion, connection to others, and reverence for life.