

# Epilogue: New Perspectives on China's Emerging Green Urban Governance

China's rapid industrialization and urbanization have caused unprecedented environmental devastation across the Chinese territory. This has had wide-reaching implications for China's urban and rural citizens alike, as well as for the rest of the planet. Since the early 1980s, China's socialist market economy has fast-tracked this development. Until recently, the leadership of the Chinese party-state privileged this development model politically by rewarding party-state leaders at all levels of administration on the basis of their ability to generate economic growth in their locality. Now, China's central leadership has decided that it must tackle the environmental crisis. The leadership has acted as "radicals at the centre" (Delman 2011) and become proponents of a green transformation of China's development model at all levels of operation. Even more, there is a growing recognition that the public needs to be better informed about the nature and severity of environmental risks and how to deal with them, and that the public must be productively engaged as the critical eye of local governments and as a partner in co-governance. These points were re-emphasized by Xi Jinping in his authoritative report to the 19th Communist Party of China Congress in October 2017 (Xi 2017).

This volume shows that numerous policies, experiments, and reforms have been put in place in China to stimulate the greening of China's cities, and that they entail a rich portfolio of new urban governance instruments, tools, and practices. It also shows that these changes are not coming about by themselves solely because of an enlightened leadership in Beijing. At the local level, there has been a rapid diversification of urban stakeholder interests and some of these have not shied away from challenging local party-state practices associated with authoritarian politics, state planning, and the socialist market development model. They are influenced—in many different ways—by China's phenomenal urbanization process, and stimulated by multiple types of policy mobilization and policy transfer that have led to rapid diffusion of knowledge and learning that have again resulted in new ways of doing things (cf. Peck and Theodore 2010).

In Chap. 1, Lund asked what type of governance serves to best promote sustainable urban development. She sought to answer that by pinpointing three governance

paradigms as main elements in an urban transition to sustainability: traditional public administration, new public management, and new public governance/network governance. She concluded that the prospects for sustainable urban governance depend on the ability of key stakeholders in cities to put together the appropriate hybrid governance paradigms with different types of instruments and tools that entail different normative foundations. These theoretical insights and the associated debates about different approaches to green urban governance have inspired the contributors in this volume to open up new empirical fields of inquiry in urban China. Many of the authors have turned toward particularism, deconstruction, and case-study singularity (cf. Peck 2015). Yet, from a theoretical perspective, the case studies contribute to explain how a multiplicity of national and urban stakeholders in China perceive, make sense of, and address their deteriorating urban environments; how they respond to the specific challenges of China's modernization, urbanization, and urban environmental disruption; and how they enact new forms of green governance to make urban development, structures, space, and life "greener" and more sustainable.

We find that the Chinese party-state continues to be the dominant player in greening China's urban governance (He et al. Chap. 3; Luova Chap. 4; Liu et al., Chap. 5; Schlæger and Zhou, Chap. 7; Delman, Chap. 8; Wang et al., Chap. 11). However, while the key green policies adopted at the national level are clearly important for China's urban leaderships, due to the hierarchical nature of the party-state system, the individual studies also show that China's emerging urban green governance brings together—mostly on a pragmatic basis, but also as a result of both strategic policy design, civil participation, and protest—diverse programmatic building blocks and instruments from China and elsewhere in search of new urban solutions. The governance approaches examined use instruments and tools from the toolboxes of traditional public administration, new public management, and new public governance/network governance respectively, on their own or in different mixes as discussed by Lund in Chap. 1 (cf. Liu et al., Chap. 5; Delman, Chap. 8). The specific combination applied in any particular case varies considerably across sectors (Liu et al., Chap. 5) and projects (J. Liu, Chap. 9; Wang et al., Chap. 11).

The approaches taken at the city level are often quite distinct, because they reflect local contexts and priorities. Delman (Chap. 8), Burell and Almén (Chap. 10), and Wang et al. (Chap. 11) deal with cases in Hangzhou, the capital of Zhejiang Province. These cases are special in some ways, but they also reflect comparable tendencies observable in other cities. The three chapters were written independently of each other, and their research questions and theoretical foci are distinct. Together, however, they demonstrate how different state and non-state actors contribute to the transformation of urban environmental governance in Hangzhou. In Chap. 11, Wang et al. used the 2014 protest against the construction of a waste-incineration plant in Hangzhou to study a new environmental consciousness which has emerged in the absence of green justice. The cause of the conflict, they point out, lay in a closed decision-making process and an omission to provide information to the public. Applying a normative perspective, they argued that instituting a more open and accountable governance process may make it possible to avoid such conflicts in the future.

The case examined by Burell and Almén in Chap. 10 is the same as that examined by Wang et al. (Chap. 11). They focus on the outcomes of local environmental governance rather than on the causes of change. In the absence of open and effective channels through which citizens can seek redress, they found that protest became a means by which the concerned citizens could exert a tangible influence on environmental governance. Further, J. Liu (Chap. 9) shows, with a number of cases from around China, how social media can be used by ordinary citizens to engage in policy learning, as well as to achieve palpable policy results in different cities in the face of similar projects.

The effect of citizen action, especially of protest, is to force urban governments to rethink their approach to environmental governance. The city government is not a passive actor in this respect, however. In Chap. 8, Delman examined the party-state's performance-review system in Hangzhou in detail. With its strong focus on social review and social participation, this system can be seen as the result of an effort on the part of the city leadership to address some of the challenges posed by an increasingly vigilant, active, and even confrontational citizenry. It also addresses some of the problems raised by Wang et al. in their exploration of green justice in Chap. 11. Even more, Delman (Chap. 8) pointed out that the social dimensions of the assessment system could lead to more inclusive governance through participation, greater transparency, and more public accountability.

The performance review and personnel management system of the party-state is in fact becoming a major incentive structure for local leaders. Delman (Chap. 8) notes that this combination of a traditional public administration approach with *new public management* instruments puts an increasingly heavy stress on the record of local leaders in handling environmental issues, exactly through the use of social participation and public accountability mechanisms. While Burell and Almén (Chap. 10) could find no direct connection between protests and the performance-grading system of Hangzhou's Environmental Protection Bureau, they still contend, like Delman, that the mere existence of this system puts pressure on local officials to avoid provoking dissatisfaction among Hangzhou residents. In Chap. 7, Schlæger and Zhou discuss how such practices can be identified in different forms across China. They find that authorities in China seek to open up platforms for public deliberation and consultation, with an eye to mitigate environmental disruption and encourage environmental vigilance.

Due to the well-recognized functional weakness of formal channels of social participation under the Chinese party-state, engaged citizens thus use protests, digital media, and NGOs in order to pressure the government to adjust its policies and governance approaches. Protests can be a useful tool for influencing local authorities, not least because the authorities are willing at times to offer concessions to citizen demands since they are concerned about social stability. J. Liu's study (Chap. 9) shows how the use of digital media strengthened the hand of environmental protesters, by enhancing their capacity for quick diffusion and learning across widely spread urban areas. Local governments are thus faced with increasingly well-informed and strategic citizens who contribute to the development of green urban governance. Zhang (Chap. 12) even found that NGOs, environmental ones

included, can influence government policy-making through lobbying, irrespective of their degree of autonomy from the state.

Altogether, the chapters in this volume account convincingly for attempts by the authoritarian party-state to engage the citizenship and vice versa. They tell the story of an engaged society that presents new challenges to local governments, and which in different, but not always obvious ways is becoming an integral part of green urban governance in China. Evidently, China's environmental crisis has challenged urban governments to change their approach to environmental management in their cities. Zhang (Chap. 12) even hints that the structure of urban governance in China could profitably change from a state-led model into a polycentric governance structure with many centers of decision-making, formally independent of each other. Whether this is actually happening already and whether they could function independently or alternatively constitute an interdependent co-governance system is an empirical question in the particular case. This is not so because of decisions made at the center, but primarily because the approaches to development of green urban governance regimes in China's cities will continue to vary considerably within the national policy framework based on the local context.

There are also differences across sectors. In their comparative study of climate resilience and water management in Beijing and Copenhagen, Li et al. (Chap. 5) explained that, in a fairly conservative and traditional public-management sector such as water, the government in Beijing mainly applies the mechanisms of traditional public administration. Unlike in Copenhagen, the public in Beijing has not yet been much involved. The choice of different governance paradigms in the two cities reflects, in the view of the authors, the larger difference between the two national contexts in regard to political systems, planning traditions, and land-ownership patterns. The authors also found, however, that there is a good deal of room in both capital city cases to introduce more bottom-up practices for the sustainable improvement of water supply and wastewater management, and for Beijing to engage with policy learning from Copenhagen with regard to citizen participation.

The unique insights afforded here into very diverse processes and practices of emerging green urban governance help comprehend how China's urban governance regimes cope with new environmental and social challenges, and with popular demands for environmental well-being, justice, and fairness. The traditional top-down administrative approach has come under severe pressure. The focus on rational resource allocation, on command-and-control approaches, on guided policy experimentation, and on the execution of increasingly complex planning methods (see He et al., Chap. 3) has proven unpractical for satisfying the demands of increasingly critical citizens and for the emerging middle classes (cf. Ren and Liu, Chap. 6) who strive for better living conditions and less damage to their urban living environment. Many of the studies in this volume point up the need for stronger public environmental monitoring to make urban green governance more evidence based and more timely (cf. Schlæger and Zhou, Chap. 7). While it is apparent that urban governments are held gradually more accountable for their own environmental performance as well as that of projects implemented in collaboration with businesses

and civil society, there is still a need for more experiments to find new solutions and new models of governance that minimize environmental risks and protect citizens' environmental rights and benefits. The transformation from a state-driven planned economy to a more liberal socialist market economy and the need for continuous adjustments in the distribution of costs and benefits among different social groups are the drivers behind such new models, and they clearly reflect the advantages of different approaches suited to local circumstances.

We would argue that several forces have contributed to shaping China's emerging green urban governance regimes. The first force is the combined effects of disastrous environmental degradation and rising popular demands for better life quality. During China's rapid urbanization process, the country has faced the challenges of increasing pollution, deteriorating quality of air and water, environment-induced health challenges, higher mortality rates, and so on. The smog that is choking China's urban areas is an unprecedented environmental catastrophe in the Chinese context. Therefore, when the Chinese leadership developed programs and set the targets for national strategic programs in recent years such as: "Comprehensive Harmonious Society" (*quanmian xiaokang shehui* 全面小康社会), "New Urbanization" (*xinxiang chengzhenghua* 新型城镇化), and "Construction of Ecological Civilization" (*shengtai wenming jianshe* 生态文明建设), the consideration was not only to restore China's environmental order but evidently also to mitigate popular dissatisfaction with the state of the environment.

Secondly, there is a strong path dependency in relation to the historical institutional legacy when it comes to governance approaches in urban China (see Introduction to this volume). The hierarchical and centralized imperial public culture of the past, the hierarchical top-down socialist institutions of the party-state since 1949, and the power of planning over economy and society still exist and exert their strong influence on urban governance. The current approach is a government-led pattern of governance which could be seen—from the perspective of the party-state—as a strategy of efficiency to achieve the realization of development targets through top-down command-and-control mechanisms. But it could also be seen as an effective approach to implement green policies through strong and relatively unified political action. The new approaches to governance discussed in the chapters of this volume show that that this model has been modified considerably over time to include governmental mobilization of diverse policy instruments, i.e. new types of planning, programs with city labeling, performance assessments, social reviews, government-guided social participation, and so on. Meanwhile, the government-led governance model is increasingly suffering from obvious shortcomings in relation to inefficient distribution of resources and justice, and sometimes it leads to decision-making that contravenes the specific needs of the environment as well as of different urban citizen groups.

The global dissemination of knowledge and the embedding of China into global green governance frameworks and regimes combine as the third force that influences the development of China's green urban governance. Many of the new ideas and approaches pursued in the local contexts have been inspired by international debates, ideas, concepts, and models, collaboration with external partners, and so

on. China has also become actively involved in global green governance. We would even argue that we are already witnessing a transformation that could make China and its cities part of a global vanguard or alliance that promotes green urban governance. During this process, China not only benefits from, but it also contributes to intensified knowledge exchange and global collaboration to strengthen the country's technical and institutional capacity for green governance.

Finally, new front-end technological developments play a significant role for the development of environmental governance. Comprehensive development of ICT, social media platforms, mobile devices, data storage and processing techniques, as well as the potential offered by big data will undoubtedly lead to new leaps in environmental governance. The study by Schlæger and Zhou in Chap. 7 demonstrates that governments, other stakeholders, and citizens alike could use digital technology even more effectively based on their own learning to improve environmental monitoring and political and administrative interventions. Undoubtedly, China and the world are entering a new epoch characterized by a deep information society. Governance mediated by data-based and data-driven technology is already in the offing and will play an increasingly important role in the future. What the studies in this volume tell us is that there is a great demand for social participation and justice in relation to the provision of environmental services and the exploitation of eco-resources in China. If the new technologies are not used to satisfy and leverage these demands as they are in some of the case studies in this volume (Schlæger and Zhou, Chap. 7; Delman, Chap. 8; J. Liu, Chap. 9), then civil contention or protests may be difficult to contain.

China's urban agglomerations offer many opportunities for feasible improvements in environmental infrastructure and services. Inasmuch as the urban setting has become the central place for innovation and knowledge accumulation, it provides an ideal platform for exploring new practices of urban green governance through policy mobilization and policy transfer (cf. Peck and Theodore 2010) as well as for policy experimentation at the local level (Heilmann 2008). New technologies and innovative new social systems for sustainability usually arise in urban areas as documented in this volume. They can spread from there outward to dependent areas through interaction and integration. In this respect, environmental education can be helpful for developing new ideas and environmental ethics, and for instilling them in society (cf. Luova, Chap. 4). There may also be changes in lifestyle and consumption patterns as a consequence of better livelihoods and higher environmental awareness (cf. Ren and Liu, Chap. 6), and they may in turn lead to changes in the system of production. As this volume demonstrates, these changes are already on the way in China. However, as argued by Brehm and Svensson (Chap. 2), if new urban green governance practices do not become widespread, pollution may just move to other areas than those that benefit from these practices. This calls for more regional and national coordination of green policies and governance regimes.

Furthermore, to move forward, there is a requirement for clear targets for sustainability and environmental welfare. In this context, operational environmental and sustainability indices could be useful (van Dijk and Zhang 2005). On the basis of such indices, stakeholders in urban green governance regimes could measure how urban governments, their organizations, their partners, and their constituencies are managing the increasing environmental risks—often referred to as “urban pathologies” (*chengshibing* 城市病)—that arise in the course of urbanization: i.e., pollution, traffic jams, carbon emissions, land degradation, excessive amounts of garbage, the destruction of river systems, and so on. It is also noteworthy that an increasing number of social organizations are working on environmental issues, holding promise for greater societal involvement (Zhang, Chap. 12). These organizations may contribute significantly to the green turn in urban governance—not only by helping to achieve better public consensus but by becoming both public partners and public movements as well.

There is, we would contend, a broad recognition in China that the green turn in urban governance is necessary and welcome. We have shown how the battle lines have been drawn and how the battle is shaping up through development of new governance regimes, instruments, and tools needed for the transition. While the Chinese experience with developing urban green governance happens under the continued dominance of an authoritarian party-state, it is noteworthy, as convincingly shown in several of the chapters, that the party-state is often receptive to popular demands and pressure at the local level and that in some case it has actually accepted the need for more transparency and accountability in execution of government, and this is augmented by increasing public participation.

Theoretically, then, this volume contributes to explaining the development of green urban governance in China against the backdrop of a global, a national, and a local environmental crisis and of contingent policy processes at all of these levels that aim to shape new green policies, instruments, experiments, and models in urban areas. The various case studies presented here contribute fresh insights into how new forms of green urban governance develop, how they play out on the ground, and what are their challenges and impacts. Even more, China's emerging green urban governance regimes continue to be based not only on local experience but also on international knowledge and practices. The outcome so far has by no means always been neat, but it appears to be driven by productive dynamics.

Finally, Chinese experiences with green urban governance are of acute interest because we need to understand what is being done in China at different scales within its urban territories to deal with environmental and social challenges that often possess regional or global implications. Even more, China's urban experience and urban governance are increasingly writing themselves unto a new agenda of research and practice that will provoke the rest of the world to rethink the governance of urban environmental processes at multiple scales and in multiple nodes within sprawling, densely populated, and dramatically growing urban agglomerates.

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