

GOVERNING CHINA
IN THE 21ST CENTURY

*The Road to Collaborative
Governance in China*



Edited by Yijia Jing



THE ROAD TO COLLABORATIVE GOVERNANCE IN CHINA

GOVERNING CHINA IN THE 21ST CENTURY

This series explores domestic and international issues affecting governance in contemporary China. China is at a critical point in its national growth, confronting immense challenges as well as opportunities. The course of its future development will be determined by its capacity to deal with these issues at local and international levels, and to build a sustainable path of development. This series has an inherently interdisciplinary focus on issues related to local governance, digital governance, urban development, environmental politics, regional diplomacy, and international affairs.

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Dr. Yijia Jing is a professor in public administration at the School of International Relations and Public Affairs at Fudan University, China. He is an associate editor of the *Public Administration Review*, editor-in-chief of the *Fudan Public Administration Review*, and a coeditor of the *International Public Management Journal*. He serves as a vice president of the International Research Society for Public Management.

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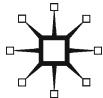
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I N T R O D U C T I O N

The Road to Collaborative Governance in China

Yijia Jing

Collaborative governance has been emerging in China as a new way to adapt the government to unprecedented socioeconomic changes and challenges (Brown, Gong, and Jing 2012). Despite its worldwide popularity, adoption of collaborative governance in China undoubtedly sheds new light on its practical scope and theoretical implications, given China's differences to earlier Western adopters. Like the apparent success of China's transition to modernization since the late 1970s, which remains a hotbed of intellectual ventures, collaborative governance may also join this debate and offer a new perspective of understanding. In this book collaborative governance is defined as the sharing of power and discretion within and across the public, nonprofit, and private sectors for public purposes. Such a definition is not new given existing definitions.¹

Collaborative governance is useful for a political economy account of China's changes since 1978. China (Mainland) has become the largest sovereign economy since 2010, and would become number one in 2014, according to the most optimistic estimate.² China's international trade, foreign exchange reserves, urban population, and production and consumption of food, housing, and cars are all the largest in the world. These facts may not be surprising considering China's approximately 1.4 billion population and its long history as a major world power. What made the Chinese story intriguing is a condensed process of comprehensive transition and growth that dwarf the predictive capacities of existing theories and perceptions. China's

economic “miracle,” if there is one, may best refer to the decade-long coexistence of fast socioeconomic modernization and continuous domestic peace and order under an evolving political regime.

Many political-economy perspectives compete in offering interpretations and explanations for this “miracle”. Developmental state, decentralization, local state corporatism, authoritarian resilience, incremental reform, political embeddedness, market-preserving federalism, and other complementary perspectives have been applied, more or less with success. Comparatively, institutional and capacity building of public governance in response to emerging public and social issues has received less attention. However, this may be an efficient way to understand China’s post-1978 experiences, due to its inherent political-administrative integration in history and in reality. Angles like the “administrative absorption of politics” (King 1975) suggest a focus on administrative modernization as active and effective response to complex challenges in a given and generally short or median period of time. Collaborative governance offers a vantage point to observe the widening distribution of interests and powers and the dynamic ways of interaction and cooperation through governing practices under a unified and continuously adapting political regime. In an important party document issued by the Communist Party of China in 2013, deliberative democracy is iterated six times, insisting on a political reform direction to welcome more power sharing and participation.³

Collaborative governance is also useful to explain government performance and citizen satisfaction. This is the focus of the book that explores the increasing role played by collaborating public and private actors in public affairs, and how public policies and management may legitimize, facilitate, and empower constructive partnerships for public good. Despite the aforementioned achievements, which provide the Chinese government with the resources and confidence to cope with challenges, the problems in China would be insurmountable, if government were the sole source of solution. Aging, domestic migration and urbanization, environmental degradation and pollution, corruption, social stratification, and polarization in China are all “wicked” problems—serious and intertwined. Appropriate responses of the Chinese government to these complex and interconnected issues and citizen demands have to be achieved through a holistic way of governing. The insight of Woodrow Wilson (1887) that “the desire to keep government a monopoly made the monopolists interested in discovering the least irritating means of governing,” is supported at this new stage by a move toward participation and collaboration in public affairs governance in China. The sharing of resources, information,

productivity, and legitimacy among partners from various sectors for public purposes is not really an option for China—the question is how to do it.

Prominent cases of collaborative governance and significant policy developments together suggest a robust and probably irreversible road toward collaborative governance. The building of the 2008 Summer Olympic Stadium Bird's Nest (Liu et al., 2010), nonprofit activism in disaster relief following the Sichuan Great Earthquake, and the environmental movement against the construction of the Nu River Dam, and the widespread contracting out of public and social services across different levels of governments are all symbols of engagement under varying mutual awareness and consent between government and external actors. Collaboration has been developing under increasing fiscal affluence and thus in general features a win-win game between actors from different sectors. A still dominant and confident state uses collaboration to engage external actors. Directed and orderly participation is expected so that state-led collaborative governance may maximize the complementary relation and its synergy as well as the outreach of the state. There seems no doubt that collaboration in China is a bidirectional and concurrent process of privatization and publicization (Freeman 2002). Collaboration reflects not only more horizontal government–society relations in China, but also more horizontal intergovernmental relations.

Compelling research questions are waiting for answers. What are the institutional foundations for collaborative governance in China? What are the big driving forces? What are the incentives for the bureaucracy to opt for collaboration? How much and deep is the existing collaborative governance? How do officials evaluate the benefits as well as costs, and develop methods of risk control and performance measurement? What are the political, legal, and managerial consequences of collaboration for the government, the market, and the society? Are the accountability chains clear and reliable? Collaborative governance and its consequences stitutional foundations for collaboration in China? Under this mentary synergy, governments are all symbols are subject to multiple endogenous and exogenous causes. It is composed of passive responses and active pursuits, as well as learning and innovations. As one of the major elements of the paradigmatic transformation of public management in China, research in collaborative governance has unlimited potential.

Responding to these issues in China and beyond, in May 2013, an international conference was organized at Fudan University on the theme “Collaboration among Government, Market, and

Society: Forging Partnerships and Encouraging Competition.” Conference cosponsors included the Fudan University School of International Relations and Public Affairs, the University of Maryland School of Public Policy, and the Association for Public Policy Analysis and Management. Half of the papers collected in this book were presented at this conference. The following sections are an extended version of the author’s keynote address at the conference and a brief summary of the book chapters.

GENERAL CONTEXT OF COLLABORATIVE GOVERNANCE IN CHINA?

Governance in China, like any other country, is a compromise of historical legacies and modernizing momentum. The fractured modern history of China creates more unease to reconcile perceptions, habits, behavior, and rules rooted in agricultural, industrial, and postmodern civilizations respectively. A simplified stage view may help organize basic contextual elements in the macro-environment of China’s collaborative governance.⁴

Stage 1: Ancient History and Royal Administration (pre-1912)

The governing system in ancient China was unfavorable to collaborative governance. Chinese emperors reserved no efforts to centralize their authorities in political, economic, administrative, and military affairs. The attempts of religious leaders to share power in the highly mundane Chinese society also failed. Since the Han Dynasty, the officially adopted Confucian philosophy supported a hierarchically designed political and social power system through its moral principles and tenets. Power struggles were handled through regime changeovers instead of creating institutional frameworks to offer minimum protection to competing and conflicting parties. A winner-take-all system and psychology shaped political behavior. Due to the dominance of government, liquidity of political capital was institutionally guaranteed as “hard currency.” Economic and social elites significantly discounted their assets in exchange for political status, linkages, and security.

Nonetheless, daily administrative practices were full of cross-sector engagement. China was too big to allow a high level of centralization. Local autonomy and self-dependence prevailed. Below the counties, the outreach of the state was weak. Moving down along the administrative hierarchy, collective and public goods provision increasingly

relied on forces embedded in local communities, kinships, and traditions. Studies of village governance in contemporary China still confirm the importance of these forces to facilitate or complement formal state system (Tsai 2007).

Stage 2: Modern History and State Administration: 1912–1978

National crises and domestic political struggles provided no ground for a decentralized power structure. Instead, the urgent needs of war mobilization and vehement political movements, with the new support of modern technology, industrialization, and ideological control, pushed the ancient logic of centralized and hierarchy-based control to its limit (Chien 1942). People's Republic of China built an unprecedentedly unified social system in its early history. Integration happened consistently in political, economic, and social areas. Politically, party and government were united. Economically, state-owned enterprises (SOEs) and government planning dominated economic life and replaced market forces. Socially, civil freedom was strictly restricted and civil society did not exist. An artificially imposed planning system endeavored to minimize uncertainty for the maximum good of the collective. A premature Chinese welfare state appeared, but mainly covered the urban state sector accounting for less than 20 percent of the population.

Stage 3: Contemporary History and Public Administration: 1978 to Present

Reform and opening up of China since 1978, began to create the essential foundation of collaboration by its “separation” reforms. Political reforms in the 1980s featured an attempt to separate the party from the government, so they could focus on their areas of competence respectively. Economically, marketization reform was gradually introduced, and SOEs were reformed, restructured, and finally privatized or incorporated in the 1990s. As a result of political liberalization and economic marketization, social space emerged and expanded. These changes were pushed ahead, especially by major rounds of structure adjustments that happened every five years (the starting year of a new government) and were labeled “administrative reforms” (Ngok and Zhu 2007). These changes gave birth to public administration in China, as the government now served a pragmatic party, and tended to be accountable to citizens for its performance. New social groups, interests, organizations, and capacities appeared

and prospered. The state consciously incorporated new economic and social elites into the regime in an incremental process of reforms.⁵

Hollowing out of the state and burgeoning external capacities invited cross-boundary cooperation. Since the 1980s, franchising and public–private partnership (PPP) in economic infrastructure construction began to appear in China. The tax assignment reform in the early 1990s strengthened the extractive capacity of the government (Wang, 1997), which in turn created the fiscal foundation of the Chinese government to opt for the buy option. In 1999 and 2002, China enacted its Bidding Law and Government Procurement Law, paving the legal framework for cross-sector partnership. In Shanghai, there were 91 kilometers of highway by 2001. Between 2001 and 2005, the highway length increased by 430 kilometers through a build-operate-transfer (BOT) arrangement that attracted a RMB 23.1 billion investment. Public service outsourcing also developed fast. According to an estimate, China's aggregate outsourcing accounted for about one-third of the total governmental service expenditures from 2002 to 2004, and demonstrated a trend of continuous growth (Jing, 2008).

However, the seemingly burgeoning collaboration between government and external actors has not been founded on clear organizational boundaries. SOEs are the most active market collaborators. Their trustfulness, prior cooperation with government, existent personnel, and other types of connections, and security and political concerns lend SOEs critical support in their competition for business from the government. Nonetheless, they often found it difficult to balance their dual roles as profit-making market players and as a policy tool to realize public values. In worse situations, they may abuse their public privileges to benefit themselves or their supervising governmental agencies. Further growth of private enterprises, SOE reforms, and procurement policy reforms are needed for better government-enterprise collaboration. Figure 0.1 shows the lion's share of SOEs in China's biggest enterprises, despite a trend of decline.

Boundaries between governments and nonprofits need to be crystallized. According to current regulations, to have a formal legal status, a nonprofit in China has to find a supervisory government agency first, and then get registered at the Ministry of Civil Affairs or its local branches. Organizational connections between governments and nonprofits are a key to overcome such a restriction-oriented entry barrier. This makes it difficult to apply the Western definition of nonprofit to China. Nonetheless, there is still institutional space for nonprofits to negotiate with the state (Saich 2000). Recent development of nonprofit policy has demonstrated an attempt to use resources

in exchange for both service performance and political compliance, for example through service contracting. But, less synergy can be expected, if the collaborating actors are not heterogeneous from the government. Figure 0.2 shows the growth of registered nonprofits in China.

Meanwhile, intergovernmental networking has been increasing but faces institutional, organizational, and conceptual barriers. Like private actors, governments hesitate to work with other governments due to many well-known bureaucratic problems such as red tape, rigid procedures, inefficiency, political intervention, administrative turf, and

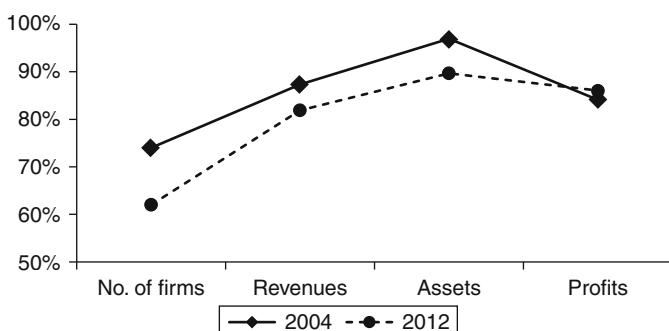


Figure 0.1 SOEs in the top 500 enterprises in China, 2004 and 2012

Source: Data from China Enterprise Federation (2012).

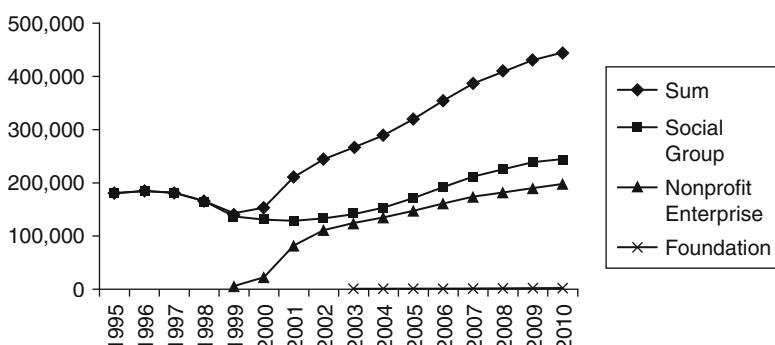


Figure 0.2 Growth of registered nonprofits in China, 1995–2010

Note: Nonprofits in China have three officially recognized types including membership-based social groups, nonprofit enterprises that deliver services to customers, and foundations.

tunnel visions. Fear of uncertainty and loss of control will prevent governments from working together. Intergovernmental networking often happens under common administrative authority, and is often imposed from above. Hierarchy-embedded networking, in which a network administration organization or a lead organization is officially assigned, is a most popular and effective way of intergovernmental cooperation in current China (Provan and Kenis 2008). Nonetheless, growing complexity and mutual dependence in the Chinese society require more active and spontaneous collaborations among local governments and governmental agencies. It is unsurprising that intergovernmental networking first appears in the economic sphere, where collaborating governments could share newly created economic rents.

THE ROAD TO COLLABORATIVE GOVERNANCE IN CHINA

The emergence of collaborative governance in China is an integral part of the general governance transformation post-1978. Its dynamics and characteristics reflect the general path of China's transition and reform. This part is an effort to summarize the major trends and characteristics of China's collaborative governance practices that may be useful for more detailed and specific observations and research, with a focus on collaboration between actors from different sectors.

Incrementalism

China's reform features a gradual trial-and-error process. Unlike Russia and a few former socialist countries, theory-driven radical reforms were not undertaken. Under a stable political regime, political feasibility of reform was achieved by incremental changes as a slow power shift made elite transformation possible and reduced resistance to reforms. Technically, gradual changes may cumulate confidence, information, experience, legitimacy, and thus pressures and support for further changes. The principle of "touching stones to cross the river" indicates the pragmatic mind of reformers to introduce changes that they could coordinate, although external learning was never absent. The recent reform history also showed that even if a radical reform was adopted, it was gradually implemented. It was not rare that radical reforms were used as a strategy to achieve median results, generalized as "one step further, half step back" reforms.

Collaborative governance, due to its emphasis on equal partnership and power sharing, has been alien to government-oriented Chinese

culture and the institutional legacies of a planning history. The road toward collaborative governance has to be gradual so that political, institutional, technical, psychological, and other barriers may be removed. Gradual changes can be observed from many aspects. The evolution of social service contracting is used here as one example of incremental adaptation and innovations in collaborative governance. Table 0.1 illustrates three major models of government–nonprofit collaboration from informal contracting, to formal contracting and to competitive contracting (Jing and Chen 2012). While the comparative strength of these models is contingent on organizational, service, and environmental factors, China's adoption of them following such a left–right sequence clearly demonstrates an incremental understanding of service demands, technical possibilities, environmental constraints, and the appropriate ways of risk control.

Looking back, such a sequential adoption of contracting models was not so slow. Informal contracting emerged in the 1980s and remains popular, in that governments' could no longer rely on in-house production due to the downsizing pressures of major rounds of administrative reforms, but still wanted to maintain hands-on control of service processes as well as service organizations. Formal contracting appeared in the mid-1990s since collaborating with affiliated nonprofits could no longer meet complex, diverse, and large-scale

Table 0.1 Models of government–nonprofit collaboration

	<i>Informal contracting</i>	<i>Formal Contracting</i>	<i>Competitive contracting</i>
Partnership formation	Negotiation and collaboration	Negotiation and collaboration	Competitive bidding
Government-Nonprofit Relations	Stewardship	Principal–agent relation, evolving toward stewardship	Principal–agent relationship
Types of contracts	Relational	Formal	Formal
Duration	Unspecified terms	Specified terms, periodic recontracting	Specified terms, periodic bidding, and recontracting
Formal accountability	Low	Middle	High
Incentive of nonprofits	Low-powered	Middle	High-powered
Mutual trust	High	Middle	Low
Relational stability	High	Middle	Low

Source: The author.

service demands, and was threatened by new fiscal and contractual regulations that put more emphasis on transparency, efficiency, and accountability. In 1995, Pudong New District government in Shanghai contracted the operation of Luoshan Service Center to the Shanghai Young Men's Christian Association. This was deemed as the first case of formal public service contracting in China. Ten years later, in 2005, the China Foundation for Poverty Alleviation adopted competitive bidding to select six nonprofit contractors to implement poverty alleviation programs with a budget of RMB 11 million, establishing China's first case of competitive contracting for public services. In 2009, a large-scale program of competitive public service contracting was launched in Shanghai (Jing and Chen 2012).

Incremental adoption of collaborative governance highlights an intention to avoid failures. Almost all hazards of cross-sector partnerships in other contexts exist in China. Lack of a prior history of horizontal cooperation, few qualified market and nonprofit service providers, weak government capacities to manage collaborative relations, insufficient support from the legal and economic institutions, rent-seeking and corruption, and political distrust and intervention may all preclude collaborative benefits (Weizsäcker, Young, and Finger 2005). Considering China's vast local differences, the entry of collaboration in local governance practices is also expected to follow a gradual process of learning, imitation, and diffusion.

State Leadership

Political and legal foundations of equal partnership are still weak. The state-affiliated path of partnership-building produces unequal relations at the beginning (Jing and Savas 2009). Even if the collaboration is built through competitive bidding and leads to the contracting of an external nonprofit—the general regulatory rules, lawsuit culture, and social norms are not sufficiently effective to restrict the contracting government from unilateral actions. However, the central role of the state is not necessarily harmful. Leadership of the state in initiating, managing, and disposing collaborative relations is beneficial, when the market and the society are less developed. Such a leadership also helps to ensure that besides other purposes the built collaborative networks will serve public interest.

Nonetheless, an overly central role of government in collaboration may effectively offset the expected benefits of collaboration. Collaboration, as a coordination mechanism between hierarchy and market, gets maximum performance when the collaborators are shaped

by appropriate sets of incentives, constraints, and expectations. These conditions occur when the government plays a facilitating, bridging, and coordinating role. Leadership, if there is any, should be consensual. In China, the general dependence of market and social organizations on government for critical resources has resulted in external organizations' undisguised preference to create and maintain a strong and good relation with the government, and to also tolerate intrusive actions from the latter. Nonetheless, the reliance on fiscal resources by the state to exercise its leadership has increased, which seems to be more consent-based than imposed. In the long run, the state will increasingly feel the conflict between its demands for efficiency and control.

Is the Chinese state committed to collaborative governance? The author feels that it is a conditional "yes." It depends on the future of the state–market and state–society relation structures. Despite visible differences in China compared to the Western societies, further growth of the strength and autonomy of market and society seems highly unavoidable. So does collaborative governance. Policy progress in China demonstrates tentative, but increasing commitment. Besides aforementioned policy and legal changes, in 2006 the Communist Party of China announced the 16-word guidelines of social management (party leadership, government responsibility, social collaboration, and citizen participation). On September 26, 2013, the General Office of the State Council issued Circular 2013 (No. 96), requesting government agencies to entrust social forces to do whatever they can do well, in order to effectively improve public service provision, quality, and efficiency. It is probably the Chinese version of "OMB circular A-76" of the US federal government, yet China's unitary system of government suggests its wider applicability to all levels of governments.

Fluctuations and retrogressions in some periods and areas occurred despite the seemingly irreversible trend. Both the economic boom since China's entry into the World Trade Organization (WTO) in 2001 and China's emergency response to the 2007 global economic crisis were deemed as a boost to China's state sector, especially the expanding SOEs that received favorable fiscal, financial, and procurement policies from the government. Local governments may also get impatient and frustrated when encountering problems in collaboration and return to less collaborative methods.⁶ For governments that used the route of collaboration for resources such as capital, fiscal affluence tended to reduce their incentive of going outward to fulfill such requirements of resources.

From Economic to Social Areas

China's sequence of reform determines the sequence of its adoption of collaboration. Economic marketization was the first step with a purpose to drag the country out of poverty and backwardness. A biased view of development as economic growth forged a narrow emphasis of government on economic issues that was called "GDPism." Market forces got on a fast track of growth and private enterprises had capacities that the state wanted. The private profit-making motives and the government's desire to provide economic services first converged in economic infrastructures and public utilities that were both in need of capital and capable of producing stable cash flows. Different kinds of partnerships, mostly build-operate-transfer, transfer-operate-transfer, and public-private partnership, were applied to toll roads, bus lines, new city sites, water plants, sewage disposal, gas, electricity generation, and other public facilities. While reliable economic evaluation of the cost-benefit of these collaborative projects was in general unavailable, such evaluation was hardly a matter of importance in a time of quick economic growth. Effective response to demands, temporary as it could be, largely veiled the perceivable efficiency loss. Few of the first generation public-private-partnership (PPP) projects have not experienced fundamental restructuring, remunicipalization, or stoppage.

Increasing fiscal affluence, since the end of the 1990s, made it possible for collaboration to shift to efficiency gain and public services. Operational and commercial services needed by the government first invited private engagement. In 2004, China's service procurement amounted to RMB 13.8 billion (US\$1.67 billion), the top three among which included maintenance (16 percent), system integration (13 percent), and IT and software development (7 percent) (Jing and Savas, 2009). Systematic and significant procurement savings were reported despite the flawed estimation methods. The government effectively stopped providing manual and much of clerical work. Government procurement of public projects, goods, and services expanded so fast that the big stakeholdership of this market had made China's negotiation to enter the Government Procurement Agreement of WTO difficult and lengthy.

Public and social services provided to citizens were a recent addition through collaboration. Early economic and administrative reforms, since 1978, were matched by "socialization" (in essence marketization) of social and human services provided by state sector employers. Ironically, China's entry into WTO in 2001 was a symbol of the decline of domestic "laissez-faire" capitalism, when strategic resources began to be consciously channeled by the state into large-scale programs

of social security and social welfare. To avoid class conflicts and to meet increasing service demands from the expanding middle class, the Chinese government needed partners to deliver various new services that it could finance, but not produce. It also found that social services, like those for the elderly, children, poor people, and disabled, could not easily find qualified suppliers in the profit-driven markets. Social capital, mechanisms, and organizations were more committed to and adept at coping with social and community issues and services. Besides other factors, increasing fiscal inputs to social service contracting could create the Chinese version of associational revolution. Again, the Chinese state faces a trade-off between its dual goal of control and empowerment in its nonprofit policy.

Innovation and Diffusion

Post-1978, decentralization in personnel management, fiscal management, economic decisions, and SOE management made local governments “residue claimants” of local economic growth. Strong incentives, plus effective downward pressures of performance measurement and political monitoring, were deemed as major reasons of the coexistence of growth and stability in China. The central government of China, compared to many other national governments, is very small. In 2009, 80 percent of the fiscal expenditures were spent by local governments, and only less than 10 percent of the civil servants were working for the central government. Public services directly provided to citizens are mostly responsibilities of the local governments.

Intergovernmental structure shapes the varied modes of diffusion of collaborative governance. Competition and learning in local governance are a major source of innovation and its diffusion. Local governments are more pragmatic, face fewer political constraints, and can better feel the need for collaboration. Wealthy coastal governments are leading innovators due to their fiscal slack, innovation desire, public management capacities, and active for-profit and nonprofit communities. Shanghai, Zhejiang, and Guangdong, for example, all have their own procollaboration innovation brands such as Shanghai’s direct election of urban residents’ committee, Zhejiang’s favorable policies toward private industrial associations, and Guangdong’s reform to relax the regulation on nonprofit registration. While ambitious local governments look at each other more closely and follow suit more quickly,⁷ the examples they built may become ideal types for second-tier and third-tier local governments, whose learning and adoption

process is slow and lengthy. Automatic and voluntary learning may be made much faster when successful cases are elaborated, patterned, and promoted by professional associations and especially higher level governments. Local governments are proactive to recommend their “established models” to superior governments as a major indicator of their performance. But, it is less frequent for higher level governments to write successful local practices into mandatory policies or regulations, except for the most basic elements of these accepted practices.

Clearly, innovation and diffusion of collaborative governance are driven by multiple pressures. Mimetic, normative, and coercive forces all play a role. Pragmatic and symbolic behavior can intertwine in a complicated way and likewise influence the results of collaboration. The reform cycle in China tends to recommend policy experiments at the beginning that may violate law, but receive green light from higher level governments, which may finally take institutional adjustments to legitimize and promote these policies. Collaboration, due to its sharing of power, will need more tolerance to experiments and failures.

From Service Contracting to Collaborative Governance

The core characteristic of collaborative governance is the sharing of power. The mutuality of cross-sector interaction, in theory, creates bidirectional movements in the same process—new public influences on the private actors and new private influences on the public actors. Such mutual influences may have varying depth, and may be imbalanced to different extents. In the China context, the focal concern is whether external actors may effectively and reasonably influence public processes through collaboration.

Apparently, the initial intention of Chinese government to collaborate with market and social organizations was for all kinds of practical gains, instead of new power relations. The strong-government culture tends to treat collaboration as pure exchange for what the government needs. Such a purpose is best met by service contracting. Yet, deepening and expanding collaboration has to stop viewing external collaborators as pure implementers. There are several natural bridging mechanisms in service contracting that forge collaborative governance.

First, service contracting induces power sharing. Incomplete contract theory fits well in China, especially when services are complex, goals are ambiguous, and techniques are uncertain. Consequently, contracting organizations replace the governments’ street-level bureaucrats, but continue to exert the latter’s discretion in making decisions and allocating scarce resources. Since government may not know clearly

what should and can be delivered, how to organize service processes, and how to measure performance and impose accountability, further contracting can happen in a way to delegate these powers. Since many agencies mix services and regulations in same processes, contracting may delegate regulatory powers at the same time.

Second, another mechanism is the derived and strengthened trust between governments and contractors. Successful contracting tends to cumulate governments' trust in not just the contractor capacities, but their intentions as well. This is important for contexts where governments have an entrenched distrust of external organizations. Meanwhile, service cooperation helps build governments' self-confidence to manage collaborative relations, convincing them the desirability and safety to have external governance partners. These trust mechanisms may be equally true and effective for market and social organizations that hesitate to work with governments. Field studies of nonprofits in Shanghai by the author show that some grassroots governments let the nonprofits design the program and write the contract.⁸ Despite a lack of systematic evidence, many functions essentially linked to the use of administrative discretion have been trusted to external organizations. Community conflict resolution, criminal justice assistance, technical appraisal, certification, subsidization decision, and other functions all have collaborative cases. This is not surprising considering the widespread quasi-public and quasi-private organizations in China (Francis, 2001). The new emphasis is that such collaboration should be formal, transparent, and accountable. Performance concerns should replace organizational connections as the foundation of partnership.

Third, contracting facilitates the entry of external organizations into local communities and governance of local affairs. Lack of connections to and representation of local communities has been a major weakness of the emerging nonprofit sector in China. By delivering services, nonprofits receive consent and assistance from contracting governments and can access community residents and build relations with local organizations such as the Urban Residents' Committee, community police, social workers, schools, etcetera. They may finally acquire adequate local information, reputation, trust, and support to become qualified participants of local governance. Current community governance practices in developed areas like Shanghai have been consciously introducing service-delivering nonprofits into formal community governance structures.

Finally, contracting may pave the organizational base of collaborative governance. A major barrier to collaborative governance in China

is the lack of capable external organizations. Service contracting has been a major drive for the prosperity of market and nonprofit organizations. The Chinese government's ambitious strategy of service procurement will be a decisive force to pump unprecedented resources into the social service sector. Besides resources, the necessary legal and organizational conditions to be a service contractor have to push the latter to formalize themselves and build appropriate internal governance structures. Meanwhile, service contractors have to improve their external governance institutions and capacities to meet increasingly complex external demands and cope with external uncertainties. All these conditions may prepare candidates of collaborative governance.

CHAPTERS IN THIS BOOK

Following this introduction, the two chapters in Part I focus on collaborative service delivery through community-based service networks. In chapter 1, Bin Chen, Beilei Yang, and Shanshan Zou empirically examine the structure of a multiparticipant community elderly service network in Pingliang subdistrict of Shanghai. Classifying networks as polycentric, monopolistic, and oligopolistic according to their levels of centralized leadership, ; the authors define the Pingliang subdistrict network as duopolistic (one type of oligopolistic) with both the street government and a government-supported social organization as the center of exchange and coordination. While the authors find differences of the network in sharing tangible and intangible resources, the research results foretell a paradigmatic shift of elderly service delivery from a government-dominated model to more reliance on external actors, although the boundaries between governments and these actors are still not so clear.

In chapter 2, Helen Liu and Bin Chen analyze the barriers to effective networking among social service providers in Hong Kong by looking at nonprofit networking in an isolated Hong Kong community. While benefits of collaboration may be well-understood and predicted, they find institutional, contractual, and organizational barriers that balkanize social service nonprofits and limit the scope and diversity of their service networks. Ironically, government efforts to fund integrative services may drive engaged nonprofits toward “a local welfare bureaucracy” by creating new boundaries. Similar nonprofits tend to work together, and a major distinction is whether they receive subvention. This chapter provides an interesting account of nonprofit failure that is very much linked to the nature of their relations to the government.

Part II discusses issues of cross-sector partnerships in public policy and management. Chapter 3 by Berthold Kuhn discusses the roles and collaboration of public, private, and nonprofit organizations in climate protection in China. He specially focuses on enabling and disabling factors for collaboration and partnerships between state, market, and civil society actors, arguing that more collaboration is needed to improve the degree of coherence, the level of compliance, and the quality of implementation in climate protection. While market-based mechanisms have been tried, nongovernmental organizations (NGOs) are undervalued players and their potential to promote the transition toward a low-carbon economy in China will be better realized in the future.

In chapter 4, Lihua Yang uses literature review to analyze China's response to the desertification in the Inner Mongolia grassland region since 1949. After discussing eight major categories of governance types including individual-based privatization, house-based privatization, community self-governance, government control and intervention, scholar participation, company participation, religious group participation, and NGO participation, he argues that there exists "a complex, compound, and networked system characterized by multi-actors, multi-levels, and multi-methods." Favorable institutional and policy conditions should be created to facilitate the functioning of all these models and strengthen their positive mutuality.

Jesper Schläger in chapter 5 endeavors to identify the linkage between adopted forms, subsequent implementation, and consequences of collaboration in China's e-government and the underlying cultural values of the Chinese public administration system, agencies, and individuals. Although not decisive, he finds that a culture change from hierarchical toward inclusion of individualist values is taking place in the government's adoption of information and communication technologies (ICTs). The Chapter uses four sequential cases of ICT adoption, including the Golden Card Project, Government online, e-public affairs, and official microblogging, to illustrate the gradual inclusion of different sets of values and how they were connected to the approaches to collaboration.

In chapter 6, Mingfeng Kuo, Chun-yuan Wang, Yan-yi Chang, and Tzung-Shiun Li study collaborative disaster management in disaster-prone Taiwan. In-depth interviews were taken to examine the influence of trust, information sharing, and accountability on collaboration between different levels of governments, civilians, nonprofits, and for-profits. They find that long-term evolution of the collaboration among them has institutionalized the structure of such a relation and paved the foundation for deepened collaboration. It has

also significantly improved citizen awareness of disaster prevention and rescue and has facilitated citizen compliance and cooperation with other organizations' rescue efforts.

In chapter 7, Guangjian Xu and Yin Wu study PPP in highways in China. They review the rise of PPP in highway financing, building, and operation in China, and the development of facilitating policy and legal systems. The chapter summarizes the major reasons of public and private sectors to work together on highway projects. It also discusses multiple mechanisms of collaboration such as the sharing of benefits and risks and the structure of partnership relation. Regulation of PPP projects is also discussed at the end.

Part III shifts to networking and collaboration within government. In chapter 8, Bin Chen, Jie Ma, and Liming Suo apply network analysis to regional governance in the Pan Pearl River Delta of South China by examining the voluntary interjurisdictional agreements among nine provinces and two special administrative districts (Hong Kong and Macao) between 2003 and 2013. The authors find longitudinally increasing networking as well as a shift of network purposes from creating shared growth to tackling cross-boundary issues such as environmental protection, science and technology, culture, and migrant labor. They also find that these interjurisdictional collaborations are spontaneous and based on internal demands, so geographic proximity and resource complementarity are major explanatory factors of their engagement in networking. Unsurprisingly, Guangdong's role as the economic center of the region creates for it more endogenous demands and capacities of networking and offers the city a central position in the networks.

Elaine Yi Lu has an interesting study of the influence of interpersonal networks on public decisions in the last chapter. Conventional wisdom highlights the importance of upward networking with superiors in China with a hierarchy-driven bureaucratic system. Lu's research confirms this perspective, but also finds the willingness of officials to network outward—to initiate contacts with colleagues of the same rank in the same organization, professional associations, state-owned enterprises, residents, private companies, nonprofit organizations, and the media. While the Chinese context sets a limit to the opportunities of outward networking, Lu argues that "a marginal degree of outward networking could start making a dent on the highly bureaucratic structure" by creating more inclusive decisions, and that affecting upward networking may best realize this change.

Overall, the chapters included in this book exemplify the frontiers of the developing collaborative governance practices and research in China.

ACKNOWLEDGEMENT

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NOTES

1. For example, see Kettl (1993), Donahue and Zeckhauser (2011), and Morgan and Shinn (2014).
2. According to an estimate, released by the World Bank's International Comparison Program on April 30, 2014.
3. The document is *Decision of the Central Committee of Communist Party of China (CCCP) on Some Major Issues to Comprehensively Deepen the Reform*. It was issued on November 12, 2013, by the third plenum of the 18th CCCP.
4. Refer to Jing (2007) for such a stage view.
5. One exemplary case was the Hurun Report on the rich lawmakers in China. In 2011, the net worth of the 70 richest delegates in China's National People's Congress rose to US \$85 billion, a gain of US \$11.5 billion from 2010. These rich lawmakers are mostly private entrepreneurs.
6. For example, since 2005, financing, construction, and maintenance of infrastructure in Shanghai, such as highways, bridges, and schools, experienced a quick change back toward direction provision. Highways built through BOT before 2005 were mostly remunicipalized.
7. A vivid example was the spread of government-sponsored venture philanthropy from Shanghai to cities like Shenzhen, Suzhou, and Dongguan since 2009. Nonprofit Incubator and Shanghai Municipal Government initiated and operated venture philanthropy program as a partnership project. To adopt the Shanghai innovation, imitating city governments invited Shanghai-based Nonprofit Incubator to build its local branches there.
8. Author's fieldwork in 2013.

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P A R T I

Collaborative Service Delivery

Network Structure, Resource Exchange, and Motivations of Partnerships in a Community-Based Elderly Care Network

Bin Chen, Beilei Yang, and Shanshan Zou

INTRODUCTION

Countries around the world have increasingly relied on collaborative governance of public, nonprofit, and business sectors to deliver publicly funded services. In particular, networks as one type of collaborative arrangements have attracted much attention and become a popular mode of delivering health and human services (Kettl 2006; O'Leary, Gerard, and Bingham 2006; Agranoff 2007; Milward and Provan 2006; Goldsmith and Eggars 2004; Meier and O'Toole 2001). After 30 years of reform, alternative modes of public service provision—contracting out, grants, subsidies, and vouchers—have been widely adopted by China's local governments. There is also an increasing interest in the formation of service delivery networks. The interest in networked governance has been spurred by the recognition of the complex and interdependent nature of the problems that the Chinese society deals with. For example, in an aging society, seniors often have multiple problems, such as poor health, mental illness, inadequate housing, and financial difficulties, that are difficult to be adequately addressed by a single service organization. To satisfy these complex needs, the policymakers and public managers at all levels of government are increasingly encouraging the formation of

community-based networks that assume responsibility for providing publicly funded social services.

The existing studies on networks in public and nonprofit management have been conducted primarily in either the US or the European context (Isett et al. 2011). Few studies have used network analytical tools to examine the delivery systems of social services in the Chinese context. To fill this gap, we used network methods to study the interorganizational networks formed among senior service providers in a local community in the city of Shanghai. Information exchange, resource sharing, policy advocacy, and service delivery are each examined as a distinct type of network tie, with each of them serving as the basis of a separate network among these organizations. We describe the overall interorganizational network structural configurations that emerged in this community-based elderly care service delivery system and the positions of specific organizations within the different networks. By comparing network structures across the four types of network ties, our study offers insights into how the senior service delivery system in this community was formed. By comparing the positions of specific organizations—in terms of their relative centrality—across the networks, this study also provides information about the role of each of the four types of organizations—the public, social, grassroots nonprofit, and for-profit—in delivering community-based senior services. By examining the motivations for forming networking ties, the study explores whether service providers partner with each other for the purpose of enhancing organizational legitimacy, meeting programmatic needs, or both. The results of this analysis are thus of great significance in shedding some light on the debate among scholars and researchers about the nature and characteristics of China's networked governance.

NETWORK STRUCTURAL CONFIGURATIONS

The study of governance is centered on the need to understand the changing relationship between the government and the society. Governance in public management is defined as institutions and processes of collective decision making and delivering publicly supported goods and services through formal and informal relationships with organizations across different sectors (Chen, Cooper, and Sun 2009; Hill and Lynn 2008). The primary focus is on managing complex relationships across organizations from different sectors (Frederickson et al. 2012). An ongoing debate among Chinese scholars focuses on the nature and characteristics of network governance in China—does it become polycentric, remain monopolistic, or something else?

We intend to address this debate by examining interorganizational connections through the lens of networks. A network is a set of socially relevant nodes connected by one or more ties. From a network perspective, multiple organizations and their connections constitute different types of interorganizational networks. We conceptualize polycentric governance as decentralized networks, monopolistic governance as completely centralized networks, and oligopolistic governance as relatively centralized networks. We delineate their differences by describing their network structure.

Although as an integral part of governance research, networks have been positioned differently in the literature (Wachhaus, 2011). They have been treated as either a distinct form of coordinating mechanism, which contrasts with markets and hierarchies (Powell 1990), or an intermediate hybrid between hierarchies and markets (Williamson 1991). Yet Laumann (1991) argues that networks actually include both markets and hierarchies, which are two specialized types of networks. Markets, at one end of a continuum, are completely decentralized networks—where players interact with each other with full information and zero transaction costs. At the other end of the continuum are hierarchies that are completely centralized networks—where a powerful figure coordinates the network through vertical authority by internalizing the transaction costs. Nodes and their connections that form different networks produce a variety of structural patterns. Some networks are described as informal, self-organizing, and decentralized. Others are observed as formal, designed, and centrally controlled.

Polycentric Governance as Decentralized Networks

Some Chinese scholars believe that a new model of cogovernance has emerged, in which organizations from multiple sectors participate in decision making and service delivery at the community level (Li 2008). The description of cogovernance resembles the concept of polycentric governance articulated by Vincent Ostrom, Charlie Tiebout, and Robert Warren (1961), referring to a self-organizing, multisectoral, and collaborative mechanism of delivering public services. Ostrom, Tiebout, and Warren (1961) define “polycentric” as

many centers of decision making that are formally independent of each other. Whether they actually function independently, or instead constitute an interdependent system of relations, is an empirical question in particular cases. To the extent that they take each other into account in competitive relationships, enter into various contractual

and cooperative undertakings or have recourse to central mechanisms to resolve conflicts, the various political jurisdictions in a metropolitan area may function in a coherent manner with consistent and predictable patterns of interacting behavior. To the extent that this is so, they may be said to function as a “system.” (831–832)

Although they did not use the term “network,” their description held many resemblances to the networked governance we are now familiar with (McGinnis and Ostrom 2011). In polycentric governance, one would observe a complex combination of multiple levels and diverse types of organizations drawn from the public, private, and nonprofit sectors. They have overlapping realms of responsibility and functional capacities. Structurally, a polycentric governance system can be operationalized as an informal and decentralized network that is closely aligned with the markets. In a decentralized network, self-organizing becomes a primary coordinating mechanism. Individuals have developed substantial networking ties and generally have equal number of connections to others. All the network members take active roles in network management and participate in decision making with relatively equal power status. There are no exceptional actors who hold an inordinate amount of power over others. Common coordination mechanisms are community-oriented, such as common values and interests, collective problem solving and decision making, negotiation and bargaining, shared resources, and reciprocal trust (Herranz 2010).

Monopolistic Governance as Completely Centralized Networks

In contrast, some scholars argue that the state in China still plays a monopolistic role in mobilizing community resources, organizing social activities, and providing services (Xu 2008; Chen, Cooper, and Sun 2009). Kang and Han (2008) further suggest that China’s state apparatus has effectively applied control strategies to different types of social and grassroots nonprofit organizations. Such a system of monopolistic governance is closely associated with the structure of hierarchies in which a single actor dominates the network—a structure of a single-lead-organization network. In a single-lead-organization network, one member assumes the responsibilities of network management and coordination. Lead-organization networks have been widely employed in the delivery of health and human services (Chen and Graddy 2010; Chen 2008; Milward and Provan 2006; Goldsmith and Eggers 2004). It usually displays a network structure of “star” or “hub-wheel”—the lead organization has the greatest number of

network ties with other organizations while few relationships have been developed among other network members. With decision-making power is centralized on a lead organization, coordinating processes are bureaucratic, characterized by tactics such as high degrees of formalized procedures involving written contracts, standardized information collection, and regular reporting (Herranz 2010).

Oligopolistic Governance as Relatively Centralized Network

For many others, the reality is most likely to lie somewhere in between, neither a polycentric nor a monopolistic, but an oligopolistic pattern of governance where a few actors play key roles. Between polycentric and monopolistic governance, there are many hybrid forms. To describe them, we borrowed the concept of oligopoly from economics. Oligopoly refers to a situation in which a few players dominate a market or an industry. Accordingly, we defined oligopolistic governance as not a single but a few actors playing key roles in the operation of the network. The power of these lead organizations often reflects on their relatively central, privileged positions in the network. Their power usually derives from the resources they control, their role in arranging for a set of services to be delivered to clients, and their capacity of issuing contracts to other organizations (Provan and Kenis, 2008; Kwait, Valente, and Celentano 2001). The study operationalizes oligopolistic governance as a multiple-lead-organization network where most network members have few connections, while a few have many.

FROM INTANGIBLE TO TANGIBLE RESOURCE EXCHANGE

In any multiorganizational service delivery system, service providers need a variety of intangible resources, such as information and reputation, and tangible resources, such as funding, staff, and clients, to function effectively (Tschorhart, Amezcuá, and Anker 2009). Such resource-based ties constitute multiple networks along a continuum of informal to formal networks. Four types of exchange relationships that are typical in public management networks are information exchange, resource sharing, policy advocacy, and service delivery.

The most informal network often involves sharing information. The central purpose of an information-sharing network is to share and exchange information across organizational boundaries, to anticipate and prepare for problems and issues facing network members

(Milward and Provan 2006; Agranoff 2007). A resource-sharing network is more formal than an information exchange network because it involves the exchange of more tangible resources. In social service delivery system, resources shared among network members could be facilities, staff and volunteers, and even joint programs (Bolland and Wilson 1994). The third type of network that is more formal is policy advocacy network. As one type of policy network, its purpose is to work together as network members to advocate for their causes and lobby the governmental agencies to change policies for their benefit. In an advocacy coalition, participants coordinate with allies who share policy preferences (Weible and Sabatier 2007). The most formal network is service delivery network where written and formal service delivery agreements are signed between network partners. Milward and Provan (2006) describe it as a service implementation network funded by public agencies to deliver services to vulnerable clients, such as the elderly. Formal contractual relationships among network actors serve to legally bind actors together by specifying the roles and responsibilities of participants.

Research suggests that the network structure of these resource exchange relationships is likely to be contingent upon the tangibility of resources that are accessed through network ties (Provan and Huang 2012). Intangible resources are more likely to be channeled through informal and decentralized networks because of the diffused social control over intangible resources. Informal relationships such as information exchange are more self-organizing, emergent, and organically derived. They are not created deliberately by any central authority and therefore are more decentralized in network structure. In contrast, tangible resources, such as capital, often flow through formal networks. Formal networking ties like service contracts are prescribed and designed by public managers to address policy problems and deliver services. They are typically created by contractual relationships between each network member and a convening body. Tangible resources are more amenable to centralized or hierarchical control by a small number of actors, such as government agencies or network managers. Hence, tangible resource exchange networks tend to be more centralized.

MOTIVATIONS OF FORMING NETWORK TIES

One organization within a network partners with another for a variety of reasons. What drives the formation of network ties may also reveal the nature of network governance. The willingness of an organization

to form network partnerships is enhanced by the presence of external incentives and the expected benefits to form networks. Different governance patterns mean that organizations must respond to varying constraints and incentives. We categorize motivations to form relationships into two areas: enhancing legitimacy and meeting programmatic needs (Chen 2010; Graddy and Chen 2006).

Institutional theory describes conformist or isomorphic behavior as a way of obtaining legitimacy in the eyes of key stakeholders. Partnerships are driven by four organizational motivators that convey legitimacy to an organization's key stakeholders—when collaboration is mandated by the public funding agency, when collaboration is required by contracts, when collaboration with an organization of honorable standing is likely to improve the reputation of both organizations, and when collaborating helps improve personal friendships between organizations.

Organizations also seek complementary resources to meet programmatic needs. A single organization might not be able to serve those who utilize social services for multiple needs. Organizations will enter into a partnership when one partner can contribute the resources or capacities beneficial to, but not possessed by, another organization. By working with other organizations through resource sharing, they can deliver services more efficiently and meet client needs more effectively. Partnerships among organizations with different missions and service practices are difficult to sustain because fundamentally different visions and cultures can create interorganizational conflicts (Graddy and Chen 2006). Organizations seek to partner with other like-minded organizations that share in their mission and mode of service delivery.

RESEARCH SETTING: SHANGHAI'S COMMUNITY-BASED ELDERLY CARE NETWORK

We selected a community-based elderly care service delivery system in the city of Shanghai for this study based on two conditions. First, while garnering great international attention due to its rapid economic development and significant social progress over the last 30 years, China is rapidly becoming an "aging society." It is estimated that from 2011 to 2015, China's aging population will increase from 178 to 221 million and its share of total population from 13.3 to 16 percent. This demographic transformation poses a great challenge to the tradition of family-based senior care and the monopolistic role of state in delivering social services to seniors. The "one child" policy

makes it increasingly difficult for a family of three to take care of four or even eight old parents and grandparents. As the deinstitutionalization of *danwei* (work units), state employers no longer carry a wide range of social service functions. The delivery of senior services is an ideal area for the government to experiment with alternative model of service delivery and therefore has become an appropriate place for us to study the changing patterns of government-society relationship.

Second, Shanghai is China's largest city with a population of around 20 million. In recognizing that a single organization is unable to address multiple problems seniors often have, since 2008 the Shanghai municipal government has encouraged the formation of community-based senior service delivery systems at its local communities to meet seniors' complex service needs. Creating and supporting community-based elderly care systems has become a national trend. By 2012, under the administration of the Shanghai municipal government, there are 17 districts, 210 subdistricts, and 5,365 resident committees. We conducted this study at a subdistrict called Pingliang, one of the 12 subdistricts in Yangpu district. Pingliang is a typical urban community in the city. By January 2011, there were 85,870 residents living in Pingliang subdistrict and 20 percent of its population is over 60 years old. Just like any other community in the city, the need for senior services at this community is high.

With the help of the subdistrict office, we identified 48 organizations that have been involved in the delivery of senior services. These organizations within the subdistrict comprised the bounded senior service system explored in this study. The delivery of senior services often requires the collective contributions of multiple organizations, some of which may be in different sectors. The 48 organizations that comprise the senior service system analyzed in this study include a variety of organizations—seven of them are government agencies, 22 government-sponsored social organizations, seven grassroots nonprofits, and 12 privately owned businesses. The services provided by these organizations to seniors include home cleaning, health care, personal hygiene, emergency assistance, home-delivered meals, recreation, personal chats, arts and culture classes, personal safety, assisted transportation, financial assistance, and others. With an annual budget of about RMB 1 million (equivalent to \$170,000), the system serves about 20,000 seniors.

We used a key informant approach to collect the data. In-person interviews were arranged by a research team to individuals identified as key informants at each of the 48 organizations that have been involved in the delivery of senior services. Network survey

instruments were used in these in-person interviews. All the 48 organizations responded to the surveys, yielding a 100 percent response rate. Organizational informants were presented with a complete list of organizations and asked to provide information about different types of linkages between their organization and each of the other organizations in the list. The survey included questions about four types of interorganizational ties along a continuum of informal to formal relationships presented in this analysis—information exchange (exchanging information related to senior service delivery), resource sharing (staff, facilities, and joint programs), policy advocacy (working together to advocate for preferential policies on behalf of senior service providers), and service delivery (formal service contracts).

ANALYSIS AND RESULTS

The results of our analysis are presented in four sections. First, we examine social diagrams of the four networks. Second, we compare their network densities and degree of centralization. Third, we identify the most and least central organizations in each of the four networks. In the fourth section, we investigate the motivations for partnership formation.

Social Diagrams

The social diagrams demonstrate which specific organizations are connected to other organizations and thus provide a useful picture of what these networks look like. Figures 1.1–1.4 display the plots of the four networks of information exchange, resource sharing, policy advocacy, and service delivery. In each figure, the nodes indicate organizations within the network and lines indicating the presence of relationships between organizations. The symbols of node are scaled by their degree centrality, so organizations with many relationships are larger. The circle nodes are government agencies, the square nodes refer to social organizations, the triangle nodes represent grassroots nonprofits, and the box nodes denote for-profit businesses.

These figures reveal five structural features about these four networks. First, the information exchange (Figure 1.1) and resource sharing (Figure 1.2) networks are the most connected and followed by the policy advocacy network (Figure 1.3), while the service delivery network (Figure 1.4) is the least connected. Second, while all the nodes are connected either directly or indirectly to one another in three networks, three nodes in the policy advocacy network are

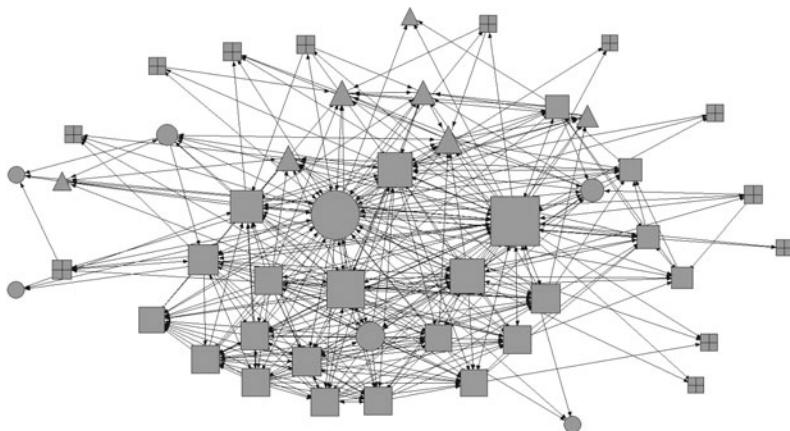


Figure 1.1 Information exchange network

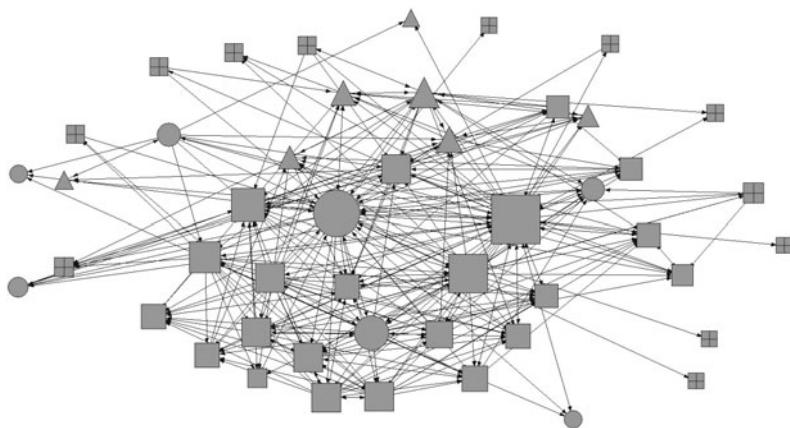


Figure 1.2 Resource-sharing network

completely disconnected from other nodes. We call them *isolates*. No isolate is detected in the other three networks. Third, in all the four networks, a few nodes are only connected to the network by a single tie, and they are called *pendants*. These pendants are located in the periphery of the diagram. There are a number of pendants in the information exchange and resource-sharing networks, a few more in the policy advocacy network, and even more in the service delivery network. Fourth, a few nodes with lots of connections are situated in

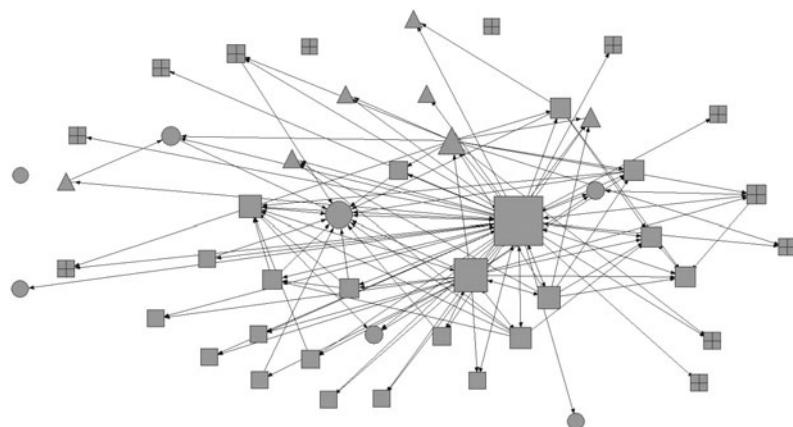


Figure 1.3 Policy advocacy network

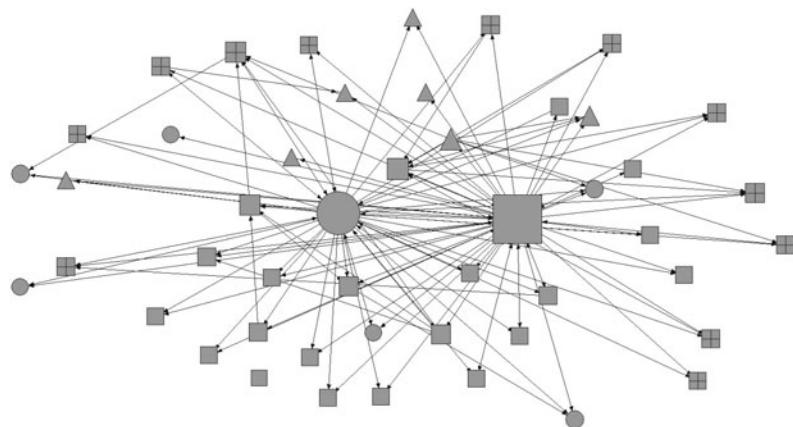


Figure 1.4 Service delivery network

the middle of each graph. Across all the four networks, a circle node (a public organization) and a square node (a social organization) stand out as the most connected nodes. Fifth, the extent to which connections concentrate on a few nodes varies across the networks. The relationships spread over many more nodes in the information exchange and resource-sharing networks, while ties concentrate on a few nodes in the policy advocacy and service delivery networks. Overall, along a continuum of informal to formal networks, informal networks of

information sharing and resource sharing look more decentralized and therefore exhibit the features of polycentric governance. In the more formal networks of policy advocacy and service delivery, relationships tend to centralize on a few nodes. They are more centralized and thus display the features of oligopolistic governance. No “star” or “hub-wheel” network structure in monopolistic governance is found in all the four networks.

Densities and Degree Centralization Scores

We calculated statistical measures of network characteristics, such as network density, centralization, and individual degree centrality scores.

Density is defined as the number of connections observed, divided by the total number of possible links. This measure provides information about overall network structure. They measure the extent to which all the organizations in the network are fully connected to each other. The closer the density score is to “0,” the lesser connected the network is. A fully connected network would have a density score at 100 percent. Focusing on the density scores reported in Table 1.1, they ranged from 18.8 to 5.8 percent. It comes as no surprise that the density score of the information exchange network is the highest among the four networks, since information as intangible resources, can be shared among organizations much more readily than sharing more tangible resources, such as doing policy advocacy and jointly delivering services (Provan, Harvey, and de Zapien 2005). It is apparent that the density scores in two informal networks (information exchange and resource sharing) are substantially higher than those in the two formal networks (policy advocacy and service delivery)—18.8 and 14.6 percent versus 5.9 and 5.8 percent. It is simply much easier to share ideas and resources on an ad hoc basis than to make a commitment to actually work together on a long-term basis.

Table 1.1 Density and degree centralization of four networks

Network	Density (%)	Out-degree centralization (%)	In-degree centralization (%)
Information exchange	18.8	80.7	56.8
Resource sharing	14.6	69.9	46.0
Policy advocacy	5.9	87.4	33.0
Service delivery	5.8	94.2	28.8

Degree centralization measures how well connected the network members are collectively. It is concerned with the distribution of links among network members. Degree centralization is the ratio of the actual sum of differences in an individual organization's centrality over the theoretical maximum, yielding a score somewhere between 0 to 100 percent. Higher degree centralization scores indicate that a few network members hold highly central positions. Network degree centralization can be broken into out-degree and in-degree. The *out-degree centralization* measures the extent to which a few nodes are senders of the relationships, while the *in-degree centralization* measures the degree to which a few nodes are receivers. *In-degree centrality* counts the number of ties an organization received and is an indicator of prominence or prestige. *Out-degree centrality* calculates the number of ties an organization sent out and measures how influential an organization is in a network.

Table 1.1 also includes statistics on degree centralization. The results yielded two different patterns. First, the out-degree centralization scores of all the four networks are greater than their in-degree centralization scores. It suggests an unequal distribution of relationships between the senders and the receivers in these networks. A few organizations have reached out to many other organizations for information exchange, resources sharing, policy advocacy, and service contracts, while many more organizations are receivers of these relationships. Second, the out-degree scores of service delivery and policy advocacy networks are higher than those of information exchange and resource-sharing networks (94.2, 87.4, 80.7, and 69.9 percent). In contrast, the rankings reverse in the in-degree centralization scores. It indicates that relationships are more concentrated in a few organizations in formal network than those in informal networks.

The Most Central and Least Central Organizations

To identify the most and least central organizations in each network, we used the measures of in-degree and out-degree centralities. We used the top and bottom twentieth percentile values of degree centrality scores as a cutoff point. Organizations with scores above the 80th percentile value were considered most central in a given network, and those with scores below the 20th percentile value were considered as least central. Each organization was given a number to which it is referred. The use of a number rather than an organizational name is intended to preserve confidentiality. The results are presented in Table 1.2.

Table 1.2 Most and least central organizations in community senior service networks

Network	Indegree		Outdegree	
	Most central	Least central	Most central	Least central
Information exchange	34, 1, 21, 12	27, 23, 6, 2, 11, 28, 24	1, 34, 9, 12, 42	3, 24, 29, 32, 36
Resource sharing	34, 1, 35, 9	27, 23, 24, 2, 3, 6, 36	34, 1, 12, 45	3, 6, 28, 8, 9, 10, 29, 36
Policy advocacy	34, 1, 35, 4, 5	27	34, 12, 38, 18	24 organizations with a score of 0
Service delivery	34, 1, 42, 28	48	34, 1, 38, 14	20 organizations with a score of 0

As indicated in Table 1.2, in the information exchange network, the in-degree scores (the number of organizations in the network that reported receiving information for senior service delivery) range from 2 to 35, with a mean of 8.85 and standard deviation of 6.40. The four organizations with the highest in-degree scores are organization 34, 1, 21, and 12. Organization 34 is a government-sponsored social organization that is a primary contractor of senior services. Organization 1 is a public organization, a division coordinating senior services within the subdistrict office. Organization 21 and 12 are other two social organizations that provide a variety of senior services, including counseling, arts classes, education, and so on. The eight organizations with the lowest in-degree scores are organization 27, 23, 6, 2, 11, 28, and 24. They are small, privately owned businesses operating in the community with the exception of organization 11, a local library. Organization 27 is a tailor, 23 and 24 two hair salons, 6 a watch and clock repairing shop, 2 a grocery, and 28 a tourism agency. The out-degree scores (the number of organizations in the network that reported sending out information for senior service delivery) range from 0 to 46, with a mean of 8.85 and standard deviation of 10.23. The five organizations with the highest out-degree scores are organization 1, 34, 9, 12, and 42. Organization 9 is a psychological clinic. While organization 12 is a social organization that offers comprehensive senior services, organization 42 is a home-based senior service center. The five organizations with the lowest out-degree scores are organization 3, 24, 29, 32, and 36. Organization 3 is again a grocery store and 24 a hair salon. Organization 29 helps seniors check the safety of their kitchens. While organization 32 is a law firm, organization 36 is a spa.

In the resource-sharing network, the in-degree scores (the number of organizations in the network that reported receiving resources for senior service delivery) range from 1 to 28, with a mean of 6.83 and standard deviation of 5.18. In terms of in-degree scores, the most central organizations are 35 and 9 in addition to organizations 34 and 1. Organization 35 is another government-supported senior school that provides all sorts of educational programs. Organization 9 is a psychological clinic. The least central organizations, in addition to organizations 27, 23, 24, 2 and 6, are organizations 3 (a grocery store) and 36 (a spa). The out-degree scores (the number of organizations in the network that reported giving out resources for senior service delivery) range from 0 to 39, with a mean of 6.83 and standard deviation of 8.68. In addition to organizations 34, 1, and 12, organization 45 (a community culture center) becomes one of the most central organizations with the highest out-degree scores. While organizations 3, 29, and 36 continue to be the least central on out-degree scores, organization 6 (a clock and watch repairing shop), 28 (a tourism company), 8 (a small business association), 9 (a psychological clinic), and 10 (a property management company) join them.

In the policy advocacy network, the in-degree scores (the number of organizations in the network that reported receiving requests of policy advocacy for senior service delivery) range from 0 to 18, with a mean of 2.79 and standard deviation of 3.14. The new members of the most central ones with the highest in-degree scores are organizations 4 and 5 (two volunteer groups). Organization 27 (a tailoring shop) continues to be the least central one. The out-degree scores (the number of organizations in the network that reported sending out requests of policy advocacy for senior service delivery) range from 0 to 43, with a mean of 2.79 and standard deviation of 7.03. Organizations 38 (a grassroots nonprofit that helps senior home cleaning and delivers meals) and 18 (a social organization that also deliver meals to senior) join the most central group of organization 34 and 12. As many as 24 organizations score at 0.

In the service delivery network, the in-degree scores (the number of organizations in the network that reported receiving contracts for senior service delivery) range from 0 to 16, with a mean of 2.73 and standard deviation of 2.45. In addition to organizations 34 and 1, organizations 42 (a home-based senior care center) and 28 (a tourism company) are also identified as the most central ones. Organization 48 (a legal assistance organization) is the least central one. The out-degree scores (the number of organizations in the network that reported giving out contracts for senior service delivery) range from

0 to 46, with a mean of 2.73 and standard deviation of 8.33. Besides organizations 34 and 1, organizations 38 (a grassroots nonprofit that helps senior home cleaning and delivers meals) and 14 (a senior recreation center) are identified as the most central. There are as many as 20 organizations that do not issue any service contracts.

In a nutshell, among 48 senior service organizations, organizations 34 and 1 were identified as the most centrally positioned in all the four networks, suggesting a specific type of oligopoly—a pattern of duopolistic governance where two players dominate each of the four networks. A large number of organizations scored 0 in both out-degree and in-degree centrality measures.

Motivations of Partnership

Our analysis then turned to the organizational level with the intention to ask the network members what motivated them toward the formation of relationships. In the survey, we also listed a number of potential reasons why an organization might normally choose to be involved with other organizations for provision of services to seniors at this local community. Respondents were asked to go through the list and rate each one as to the importance of that reason on a scale from 1 to 5 (1 = almost never the reason for involvement, 2 = seldom the reason, 3 = sometimes the reason, 4 = often the reason and 5 = almost always the reason for involvement). Table 1.3 summarizes their answers. The motives are organized by organizational legitimacy and programmatic needs. We also explicitly asked how important the motivations for collaboration leading to the formation of partnerships were. We report the aggregate averages across the network members

Table 1.3 Motivations of partnerships

	<i>Mean scale (1–5)</i>	<i>Number with 1 = not at all important (%)</i>	<i>Number with 5 = very important (%)</i>
Organizational legitimacy			
Governmental mandate	2.72	40	50
Contractual requirement	2.00	63	13
Partner's reputation	2.52	50	25
Personal friendship	1.85	69	6
Programmatic needs			
Service delivery efficiency	4.04	13	50
Service demand	4.48	4	69
Shared mission and practice	3.23	29	27

on a scale from 1 (not at all important) to 5 (very important) in their decision to form a partnership. We also report as a percentage the number of organizations that scored either a 1 or a 5, as an indication of extreme responses and as a measure of variability.

The motivations of enhancing organizational legitimacy are relatively weaker. They seek to build their collaborative relationships—as being mandated by government agencies, but also to enhance their own reputation by working with a strong partner. As institutional theory suggests, collaborative relationships can originate from an organization's need to improve its reputation, image, or prestige, or to achieve congruence with prevailing norms in its institutional environment (DiMaggio and Powell 1983). The importance that respondents attached to working with a strong partner to develop a link for meeting a governmental mandate while enhancing reputation may reflect their inclination to offer “socially acceptable” answers. In the context of Chinese organizations, they may view compliance with these norms to be necessary for legitimacy and survival. There is little support for an organization's motivation driven by personal friendship. This is surprisingly different from the existing literature on health and human service delivery network (Kwait, Valente, and Celentano 2001). Yet, the role of programmatic needs is much stronger than the need for enhancing organizational legitimacy. Rather, these organizations seek to improve their service delivery and meet client demands more effectively. There is also an indication that partnering organizations who shared the same mission practice is very important, though to a lesser extent than the other two programmatic needs.

DISCUSSION AND CONCLUSION

In this chapter, we studied a community-based senior service delivery system at Pingliang subdistrict in Shanghai. We articulated a network approach to delineate different patterns of networked governance—polycentric governance as decentralized networks, monopolistic governance as single-lead-organization networks, and oligopolistic governance as multi-lead-organization networks. We applied social network analysis to studying that the social service delivery system depends upon interorganizational collaborations across different sectors more than centralized bureaucracies. Our analysis focused on four types of interorganizational linkages—information exchange, resource sharing, policy advocacy, and service delivery. We conclude that the pattern of networked governance is neither polycentric nor monopolistic, but appears to be more oligopolistic, or more specifically duopolistic.

Our findings reveal that all of the networks, except the network based on policy advocacy, are relatively connected, with most organizations either directly or indirectly linked. Yet the specific level of connection varies across the different types of networks, with the network based on information exchange most dense and the one based on service delivery least dense. The findings from this study suggest that the group of organizations in Pingliang subdistrict have developed various types of informal and formal working relationships to meet the many needs of seniors. The state no longer plays a monopolistic role in senior service delivery. The relatively higher densities of the networks based on information exchange and resource sharing suggest that informal relationships of exchanging intangible resources have occurred more frequently than do the formal types of linkages of sharing more tangible resources. Highly structured coordination involving substantial investment of resources, time, and effort, and ongoing interorganizational activities appears to be less common. These results are consistent with those studies of human and health service delivery systems conducted in the Western context (Provan and Huang 2012; Provan, Harvey, and Zapien 2005; Kwait, Valente, and Celentano 2001; Bolland and Wilson 1994).

The analysis of network degree centralization and individual organizational centrality also provides insights into how a duopolistic pattern of governance emerges. Overall, there is a substantial amount of concentration or centralization in these networks. That is, the power of individual organizations varies rather substantially, and this means that positional advantages are rather unequally distributed toward a few organizations. Of the 48 senior service organizations, two organizations (34 and 1) consistently stand out as the most central in all the four networks. These two organizations are the most connected and involved in the system. The results of network analysis did not surprise some of respondents we interviewed. According to them, as a government-sponsored social organization, organization 34 is a senior association created in 2003. It has been designated as a primary contractor by the subdistrict office to provide senior services. In addition to case management, the organization further subcontracts many services with other community-based organizations. Organization 1 is a senior affairs division with the subdistrict government. It is a representative of government in the system. Its primary responsibility is to coordinate with other government agencies regarding senior policies at the community level. These two organizations are considered by network members as the most prestigious in that, they are the objects of the most ties in all of the four networks. Besides these two most central

organizations, a number of other organizations also occupy central positions, though less central than 34 and 1. They tend to be those that have been created specifically to provide senior services or specialize in senior care, for example, a senior recreation center or mental health counseling. Another interesting subset of organizations is comprised of those that are quite peripheral in the networks. They are small for-profit businesses, such as barber shops and grocery stores. Their services are not exclusive to seniors and likely to provide services to seniors without becoming involved in the ongoing interactions with other organizations. Our finding echoes the results from mental health service networks in the United States, studied by Provan and Milward (1995). They observed that these networks tend to be dominated by a few organizations that are government-designated fiscal agents. They receive funding from federal and state programs, arrange for a set of services to be delivered to the clients, and issue contracts to other organizations.

When turning to motivation of partnerships, the results suggest that network members are driven by both organizational legitimacy and programmatic needs featured in a system of oligopolistic governance. The programmatic needs are much stronger than the motivations of organizational legitimacy. Interorganizational collaboration formed in this community seems to be more driven by the purpose of meeting the programmatic needs.

Our study has important implications for policymakers and organizations that are involved in community-based senior service delivery. First, the research of this kind can help policymakers understand how community-based senior service networks are structured by looking at their key features. Such an assessment is critical in designing interventions to promote collaboration across the organizational boundaries. The existing interorganizational relationships as social capital can be leveraged to increase community capacity to meet more social needs (Varda, 2011). The information about the existing network can be used to determine the role each organization will have in the restructuring process and in the new system. Second, communicating the result of this research will make those more central organizations be more cognizant of their leading positions in the networks. So they can take initiative in addressing key issues in network management: accountability, legitimacy, conflict, structural design, and commitment (Milward and Provan 2006). Understanding the network structure will help them identify the gaps in services so that clients will not fall through the cracks. They may target those more peripheral organizations in the network to assist them in improving their capability to provide better services.

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The Challenges of Implementing Collaborative Governance in Hong Kong: Case Study of a Low-Income Family Community

Helen K. Liu and Bin Chen

INTRODUCTION

The delivery of social services to low-income families that may be struggling with a variety of challenges often requires a high level of coordination from service providers in different fields. In Hong Kong, in particular, a series of policies and centers aimed at fostering integrative approaches have been established in order to enhance collaboration among service providers at the community level. Some of these include Integrated Children and Youth Services, Integrated Home Care Services, Integrative Family Service Centres (IFSCs), and Integrated Community Centres for Mental Wellness. However, families still find themselves having difficulties in muddling through the system in order to get their problems solved, and service providers find themselves facing unrealistic demands and struggling between managing caseloads and coordinating with different community actors.

Traditionally, organizations utilize top-down command and control guidelines to instruct employees on what or what not to do. The roles and functions of front-line staff are defined through the mission, responsibility, accountability, resources, and capacity of the organization (Kettl 2006). However, more recently, new institutional

arrangements that utilize horizontal connections in addition to the traditional vertical command and control system have become essential to the governance of collaboration (Agranoff and McGuire 1998; Kettl 2006). In these horizontal structures, employees assume roles, relationships, and responsibilities based on the on-the-ground needs and opportunities that they face.

However, Kettl points out that “managing collaborative systems in the contemporary environment is fundamentally different and more difficult because it requires administration to go beyond the traditional boundaries” (Kettl 2006: 16). The role and function of each social service provider may be well defined, but the problems of social service clients are not, often spilling over into the gray area between professional boundaries. Resolving a problem for one family might require multiple social service agencies to work together. It has become clear that it is imperative for social service providers to be more adaptive and willing to work with others (Agranoff and McGuire 1998). Informal and social boundaries, therefore, play an increasingly important role in maintaining the stability of social service delivery systems. These informal boundaries form through the bounding of identity and social ties among groups or organizations working together (Lipsky 1980).

In this chapter, we explore how both formal and informal constraints and boundaries might prevent the social service providers from working smoothly together, through a case study of a social service network serving low-income families living in a large urban housing project in Hong Kong. To do so, we apply the case method (Eisenhardt and Graebner 2007) and select a unique case that can illustrate the roadblocks of building efficient collaborative governance system in an urban community. We examine a social service network gathered based on interviews with 28 out of total 32 social service providers in one of the largest public housing estates in Hong Kong, a low-income resident community of 70,000. This unique, isolated public housing estate allows us to examine the naturalistic processes of interaction among a group of very diverse social service providers. We then discuss key challenges faced by these front-line implementers and conclude with policy implications for collaborative governance in Hong Kong and China.

THE HONG KONG SOCIAL WELFARE SYSTEM

We need to have a grasp of both the top-down and bottom-up approaches to the provision of social services in order to draw a truly

comprehensive picture of an entire social service delivery network at the community level. The top-down perspective will help us understand the mechanisms of legitimacy and authority. Meanwhile, bottom-up social service providers have a long history in Hong Kong and have an established reputation in the community. We believe it is important to recognize this force and that tracing their development will help to explain some of the informal boundaries that define today's networks.

The Development of Collaborative Social Service Governance

The Hong Kong government has a long history of forming partnerships with nonprofit organizations that provide social services. Since 1970s, the colonial government expanded the provision of social and public services, faith-based, and nonprofit organizations were mobilized to provide welfare, education, health, and other social services. To manage these organizations outside the governments, large-scale funding models have been established, such as the standard unit cost model (Working Party on Social Welfare Policies and Services 1991). Under this model, nonprofit organizations have been highly dependent on government funding, ranging from 70 to 90 percent of their total funding and would operate their services within the government policy areas (Centre for Civil Society and Governance 2010).

In the 1990s, the New Public Management Reform had been adopted by the Hong Kong government, and it ultimately affected the relationship between the government and nonprofit organizations. This reform provided a more flexible funding model for the nonprofits by replacing the standard unit cost model with the lump-sum grant system, which adopts a line-item budgeting (Social Welfare Department 2000). Furthermore, under the reform, nonprofits are required to be accountable for their performance because of the adoption of service quality standards and funding and service agreements. In addition to performance evaluation, the funding scheme has also changed to a short-term funding from a long-term one, so that the government can ensure the quality of services through introduction of competition among those social service providers (Centre for Civil Society and Governance 2010).

Besides strict guidelines on the usage of government funding for the provision of social services, the Hong Kong government also adopts clear service boundaries for social service providers to serve different social services, age groups, and population. Due to a clear division of labor and development of professionalism, the provision

of social services requires the coordination of multiple major government departments, including the Social Welfare Department (SWD), the Education Bureau, the Housing Authority, the Department of Health, the Labor Department, and the Home Affairs Department. The SWD, in particular, has implemented a wide range of services to assist citizens who are facing challenges and plays a central role in integrating social services across departments.

Besides the coordination across different departments, the government has also implemented policies to reach out to the local nonprofits for coordination purposes. In the early 2000s, as the social service delivery field became more complex, the government responded by implementing a series of service reforms. For instance, one of the key establishments of the new collaborative system was the Integrative Family Service Centres (IFSCs). The key objective of the IFSCs is to provide comprehensive services through organizational partnerships and service integration, thus “dealing with complicated and multiple family problems as far as possible in a single service organization and avoiding services being too categorical and fragmented” (The University of Hong Kong 2010: 5).

However, the IFSC ideal of “community-based” solutions has been inherently problematic—it relies heavily on the readiness and commitment of individual social workers to adopt the new orientation, as well as on the shared commitment, objectives, and enthusiasm of community stakeholders (The University of Hong Kong 2010). The building and maintenance of networks and partnerships were also seen as particularly time-consuming and labor-intensive, and collaborative relationships were reported to be easily damaged by personnel changes, leading to the repetition of the cycle of building new networks and partnerships (The University of Hong Kong 2010). Little is known about the day-to-day roles and interactions performed by front-line social service providers as they struggle to implement integrative and collaborative services in the local community. In the next section, we will first describe the major actors for social service provision in the community and examine the difficulty and challenges of transforming the traditional service delivery model into a collaborative governance system.

SOCIAL SERVICE SYSTEM IN HONG KONG

Before the 1970s, the colonial government paid little attention to the social services in Hong Kong, and very few—or even no—resources were spent on welfare, especially in the local Chinese communities.

An emergent, fragile civil society gradually formed among different groups in order to address the service gaps left due to government failures. The specific institutions that constitute the community are the church, faith-based related organizations, traditional Chinese charities and mutual aids associations, schools, formal social civic and political organizations formed for the purposes of district councilor's elections. These institutions exist within the public housing estates to meet the residents' needs. We will discuss several primary actors who provided important social services in Hong Kong before the government's intervention.

Hong Kong Religious Charities

The long and significant role of religious charities in Hong Kong can be traced back to 1841, when the Roman Catholic Church opened Hong Kong's first mission prefecture. Apart from spreading Christianity, these religious communities were actively involved in the provision of community services, ranging from education and health care to social welfare. One example is the Pentecostal Church of Hong Kong, a medium-sized religious charity that was established in 1954 by Rev. Hoi Lei Si and registered as a nonprofit organization in 1964. One of the missions of the church is "to glorify God and benefit people, through the provision of social services." Since its establishment, the church has provided education, family, and disability services in the local community (The Pentecostal Church of Hong Kong 2012), bringing immense benefits to the local population.

In the early colonial period, the colonial government relied heavily on these religious organizations to provide basic education and social service to the local residents. Since the shift to the contemporary Chinese government, many faith-based organizations have continued to be important members of their communities, working together and with the government. Some, such as the Christian Family Service Centre, have become increasingly professionalized.

Chinese Charities

Chinese charities also play a crucial role in the provision of social services in Hong Kong. This role was pioneered in part by the Tung Wah Group of Hospitals (TWGHs), together with Po Leung Kuk and Lok Sin Tong in the nineteenth century. The TWGHs, established in 1872, bridged the gap between the Chinese community and the colonial state, representing and managing the Chinese community during

the early colonial era (Sinn 2003). In particular, the TWGHs were widely recognized as the first hospitals in China to adopt Western hospital methods in providing Chinese medical services. Gradually, they extended their activities into other areas and played an important role in the development of Hong Kong's medical, education, and community services (Tung Wah Group of Hospitals 2012).

In addition to the well-established ones, new charities with strong Chinese links continue to grow. Some of them have begun to build their own service networks, particularly in neighborhoods with large populations of new immigrants. For instance, the New Immigrant Foundation, founded by a group of Chinese businessmen, establishes or supports local community service centers in order to help other new immigrants like themselves succeed in Hong Kong. These organizations provide alternative assistance for low-income residents who have not obtained permanent residency and who are not yet eligible for government assistance or government-funded services.

Mutual Aid Groups

Mutual aid groups, such as the Kaifong Associations (Wong 1972, 1995), find their roots in Hong Kong in 1949, when they were encouraged by the colonial government's Secretary for Chinese Affairs to provide services for local communities. A majority of community members at this time were newcomers to the colony who had to live in deplorable conditions with little assistance in times of trouble (Hayes 1996). The Kaifong Associations provided low-cost social services in areas such as education and health care, and engaged in a wide range of community development work (Wong 1972; Hayes 1996; Leung 2010). Despite the reduction in government's financial support for mutual aid groups, when the SWD assumed greater responsibility for social welfare services, some of these groups have remained active and important in their communities (Wong 1972).

Schools

Though the primary function of schools is education, many of the first schools in Hong Kong were established by churches, beginning in the 1840s, as an extension of their social service work, and to this day many remain closely related to other social service centers that fall under the same church umbrella. The role of schools in Hong Kong, moreover, is broadly civic and is not limited to providing education services—students are encouraged develop in all areas according to their own

attributes and required to provide various sorts of services to the community, for example, by volunteering with the Association of the Deaf and Lok Sin Tong (BPS 2012). An early inspiration for this popular model of service learning was the Belilos Public School (BPS), the first government school for girls in Hong Kong founded in 1890.

District Council

In order to improve the delivery and provision of services and facilities at the district level, district boards were set up under the district administration scheme in 1982 during the colonial era (Leung 2010). The district councils initiate, organize, and sponsor projects aimed at enhancing community spirit and promoting the social cohesion and well-being of the people. In 2012–2013, HKD 320 million was provided for district councils to implement these projects and activities, including large-scale district festivals and activities to promote sports and culture, as well as campaigns to advocate for a better community for disadvantaged groups. Leung (2010) argues that district councils promote communication between local organizations and the government over facilitating the formation of partnerships between community organizations, considering this a legacy of the colonial government's approach. District councils can allocate some resources to the provision of public and social services, yet have no real political power to influence their administration.

Challenges of Implementing Collaborative Governance by Social Service Providers

Front-line social service providers are facing two forces of pressures—top-down and bottom-up pressures when delivering and implementing social services in the local communities. Traditionally, the top-down command and control boundaries exist as guidelines for employees to know what or what not to do. Mission, responsibility, accountability, resource, and capacity of an organization have implication for the front-line staff members to define their service boundaries within their entities (Kettl 2006). Meanwhile, a new institutional arrangement that can adopt the horizontal connections in additional to the traditional vertical command and control system became essential to the governance of collaboration (Agranoff and McGuire 1998; Kettl 2006). Informal and social boundaries form through the binding of identity and social ties among groups or organization working together, such as a group of street-level bureaucrats (Lipsky 1980).

These boundaries, whether the traditional vertical command and control system or the informal horizontal network system, concurrently create both real and perceived barriers to the emerging collaborative movements that require flexible and inclusive institutional arrangements (Kettl 2006; Kallis, Kiparsky, and Norgaard 2009; Quick and Feldman 2011). Abbott (1995: 862) views boundaries as “sites of difference” and argues that boundaries are prerequisites, rather consequences of entities. Not only do boundaries define entities, boundaries also create “insiders and outsiders” (Quick and Feldman 2011: 5). Boundaries therefore limit the opportunities for relevant actors to make connections that can make the system more efficient and effective.

Boundaries are essential to the administrative process. For instance, an organization’s mission defines what an organization can do. More importantly, it also puts on more restrictions for organizations to do things outside of their mission. As the interdependency among social service providers increases in Hong Kong, in order to work with the others, front-line staff find themselves having to deal with the tasks and activities that fall outside their missions. To accomplish goals, front-line staff members are required to negotiate for their own benefits and resolve conflicts to prevent collaboration losses. While some organizations find themselves better off by working alone or with organizations that have similar missions, others believe that working with organizations that have different missions could complement their limitations and expand the scope of their provisions.

As Kettl (2006) further described, responsibility is defined as who needs to do what. In a community service delivery system, practitioners often refer to the responsibility of an organization as service boundary. In Hong Kong, the service boundary of social service providers is classified by types of clients and locations. The SWD has implemented a wide range of services to assist citizens who are facing challenges. The services are often classified by clientele—social security, family and child welfare, clinical psychological, medical, rehabilitation, elderly, young, offenders, and community development services. Services provided by the SWD are implemented through another geographic boundary by 11 welfare districts.

Since the early 2000s, the SWD has established one-stop services to enhance welfare services accessibility and convenience for Hong Kong’s citizens. However, the implementation of integrated services have been initiated by different service divisions—the Integrated Children and Youth Services (ICYSCs) were established in 2001 and modernized in 2003; the Integrated Home Care Services transferred

from 138 teams to 60 agencies in April 2003; IFSCs were established in 2005, after a pilot project in 2001; and the Integrated Community Centre for Mental Wellness (ICCMW) was established in October 2010. Although the concept of integrative and one-stop services were priorities of the policymakers, the actual implementation of integrative services remains divided by its traditional service boundary classified by clientele—family, youth, elder, family, and clinical psychology services as well as geography. A large and systematic review was carried out by the University of Hong Kong to review the implementation of the integrative system. They found a weakness in some centers in building up horizontal connections with the other social service providers in the community, because the social workers of those centers had increasing caseloads due to the unclear definition of the service boundary of integrative family services.

Furthermore, how the government allocates resources to the social service sector could provide legitimacy and authority for social service providers. As mentioned before, the colonial government played a minimal role in the provision of social services before the 1970s. Major social services were provided by religious organizations, self-help groups, Kaifong Associations, and Chinese charities. After the 1970s, Hong Kong's government had injected substantial resources into the provision of social services through long-term contracting with faith-based and nonprofit organizations. For instance, the Hong Kong Council of Social Services has played an important role as the coordinator of overseeing and assisting nonprofits to make collective decisions on resource allocation. Under this long-term subvention scheme, nonprofits receive about 70 percent funding from the government, which creates a highly dependent relationship between nonprofits and the government (Lee and Liu 2012). In 2000, the Hong Kong government launched a lump-sum grant initiative and introduced competition to the grant system. The service reform required that social service organizations receiving government grants become more accountable by adopting performance standards such as service quality standards and funding and service agreements.

Finally, capacity to build effective collaborative governance is another challenge faced by the social service providers. Capacity is organized through the organization's structure and is defined as how to best to create a reservoir of expertise to fulfill the mission (Kettl 2006). Essential capacities for the social service providers include their human and financial resources, governance system, and network capacity. For instance, the knowledge and skills required for collaboration are different from the day-to-day service operation.

Organizations lacking such network capacity might find themselves struggling while extending their relationships with others. More importantly, how many resources and how legitimate an organization is willing to be regarding building collaborations will also affect the capacity of networking.

Besides the formal boundaries, there are informal boundaries that have developed in the course of history. Those boundaries evolved to readdress more complex issues. Yet, at the same time, they create barriers for a more inclusive process. Emerson, Nabatchi, and Balogh (2012) built an extensive framework on collaborative government. One important dimension was the interaction between system context and the dynamic of collaboration. They argue that external system context, such as political, legal, socioeconomic, environmental factors, creates opportunities and constraints to collaborative governance. One important element is the existing network among organizations, which might alter their decisions on forming new relationships. For instance, Mazmanian and Sabatier (1983) find that small groups often form due to their similar backgrounds within larger implementation networks. Sometimes, those groups become distorted and the entire network cannot operate efficiently. In Hong Kong, we have observed several existing networks, such as faith-based networks, political networks, and schools networks. To operate the test of these propositions, we now turn to our data collection and analytical framework.

Understanding the challenges of managing those boundaries are essential in collaborative governance because the roles and functions of individual social service providers are defined through their organizational missions and service boundaries. However, the problems faced by low-income families are complex and may not always fall inside these formal missions and boundaries. For instance, in our study, a local faith-based community center discovered that one of their low-income clients could not support their 59-year-old grandfather, who had a low degree of mental disorder. Because the service scope of this community center does not include elderly service, they could not provide direct services to this senior community member. The public hospital and local elderly care center had also turned him down because his age and conditions didn't meet their eligibility requirements. Eventually, this community center had to assign one of their volunteers to visit this family regularly to ensure the grandparent received proper care before he was approved to enter the elderly care center. Although the role and function of this center does not include elderly service, the center manager decided to take initiative

to solve a problem for a family, effectively expanding the scope of the organization's role and services based upon on-the-grounds needs and existing client relationships. This is an example of how, during the implementation of services, front-line social service providers have to go beyond their service boundaries through information exchange and referral among local service providers in order to solve their clients' problems. We will discuss our data and methods to investigate the challenges faced by these social service providers who are embedded in a collaborative governance system in a low-income family community in Hong Kong.

DATA AND METHOD

To understand the challenges and social dynamics of social service providers in an urban community in Hong Kong, it is important to include all potential participants (not only the most easily recognized service providers). We adopted a multimethod to define our sampling frame. First, we selected a housing estate community that is located in a relatively remote area, meaning it makes the most sense for the local residents to access services from their local organizations. The community under study consists exclusively of public rental housings. Of the approximately 70,000 residents (23,000 households), the average rate of labor participation is around 53 percent. A large percentage (81 percent) of the total population have average monthly incomes below HKD 14,999.

To obtain a list of the relevant organizations, we asked about 250 local residents to identify organizations that had provided essential social services to them in the past 12 months. From that data, we obtained a list of organizations that provide essential social services both within and outside the public housing estate. Our team then conducted site visits to those organizations to confirm their presence. At the same time, we also conducted a block-by-block search to identify additional organizations providing essential social services in the community. Essential social services are defined as services that address problems pertaining to the family, childcare, youth, unemployment, the elderly, or health, as well as mental problem consulting services. This process identified 32¹ unique social service agencies across the public, private, and nonprofit sectors.

Building on this information, we then followed Provan and Milward's (1991, 1995) network data collection procedures. Using our master list of all 32 organizations providing services to the target population, we conducted an initial mail or phone survey targeted at

the social service agencies, followed by a second round of in-person interviews with the managers of the agencies, and a third follow-up phone call for missing data and data accuracy. We also maintained a collection of documentation on funding and policy initiatives. These procedures ensure that the agencies are selected because of their direct involvement with low-income clients and not because of purely formal, on paper relationships to the government or major service providers. Using the multimethod, we were able to reach beyond the agencies already well-integrated into known networks. To achieve a decent response rate, our team went through multiple channels to reach our respondents. On average, it took four contact attempts (or 70 days from our first contact) before we could schedule an interview. We were able to interview 28 out of the 32 social service agencies between September 2012 and March 2013, and that led to a response rate of 87.5 percent. Two agencies rejected our survey, and another did not reply to us before the interview deadline.

In our survey, we collected data on the year of establishment, size, administrator's education background, mission, funding sources, network capacity, service boundary, integrative or nonintegrative approach, involvement in any already-defined networks, partnerships, and client referral relationships. In order to collect elaborative and fruitful responses, three open-ended questions were designed for the respondents to systematically address the issues and challenges of building collaborative governance system in a local community. While the first question explores the perceived level of comprehensiveness of provision system in the district, the second question delves further into the apparent barriers in hindering, the aforementioned comprehensiveness. The third question, then, addresses the specific projects created to facilitate collaborative governance, which shapes the social service provision. Here are the backgrounds of the studied organizations.

The average age of these organizations was 17.14 years, and the average size, measured by the number of employees, was 18.39. A little more than half of the center managers had obtained a social work degree, about a quarter of them had received education training or a certificate, and the rest of them had degrees in other fields, such as public administration or management. About a quarter of them reported that their primary mission involves family and women's issues, education, elderly and youth services, community issues, health, children, new immigrants, and unemployment. Note that the types of services that are provided within this low-income community are both diverse and comprehensive. In terms of the interviewees'

profiles, ten of the respondents are male, 18 are female. The average age of the respondents is 44.5 years . 24 out of the 28 respondents have had their education at the university level or above. Of the 28, 22 are born in Hong Kong. Eleven are Christians and 15 have no religious beliefs. The average number of years the respondents worked in the organizations is 11.3 years.

In terms of their funding structure, about 47.5 percent of the organizations received government subvention. For instance, several youth clubs, integrated family centers, and elder centers reported that they received government subvention to deliver social services to low-income families.² Also, three kindergartens received subvention to operate nursery and daycare programs in addition to their school programs. In term of their capacity, the average score for the self-reported network capacity is about 3.61, on a scale of one to five with one indicating a low network capacity and five indicating the highest. About 67.86 percent of the organizations serve solely in the public housing estates and the rest of them serve the district (smaller political division), Kowloon area (a larger political division that includes the district), or all of Hong Kong. A quarter or seven of the organizations provides integrative services. Six (about 21 percent) organizations are embedded in a ten-year-old faith-based network, and another six organizations are affiliated with political parties in Hong Kong.³

RESULTS

We will discuss the results of the analyses according to our survey and open-ended questions about the challenges faced by the social service providers when implementing collaborative governance in low-income family community in Hong Kong. In an effort to meet the new demands, social service providers report reasonable efforts of interagency cooperation and collaboration. From our survey questionnaires, we find that the organizations have created an inducing collaborative culture and environment to promote collaboration with other organizations as per the chart below.

To first understand how collaboration is incorporated into the mission, operation, capacity building, and responsibility of the social service providers, we asked the interviewees eight questions: (1) if the organization proactively encourages its staff to exchange knowledge with others, (2) if the organization has an internal policy and procedure to promote collaboration, (3) if the organization has allocated hours for staff to perform collaboration, (4) if the interviewees believe that their partners can provide comprehensive services to

the beneficiaries of the interviewees' organization, (5) if the organization can achieve its goal better through collaboration, (6) if the organization adopts assessment criteria to evaluate potential partners, (7) if the organization has competent staff to collaborate with the other organizations, and (8) if collaboration is part of the organizational mission. The answers to those questions are self-reported by the interviewees and are based on the perception of the 26 interviewees on behalf of their organization (figure 2.1).

Collaboration is described by the majority of organizations as their responsibility and is incorporated into their operational procedures and routines. More specifically, nearly all of them (23) believe that through collaboration, they can provide better and more comprehensive social services to their clients, and 22 interviewees reported that their organizations encourage them to exchange knowledge with the other organizations. Again, the majority of interviewees (18) reported that their organizations have implemented an internal policy

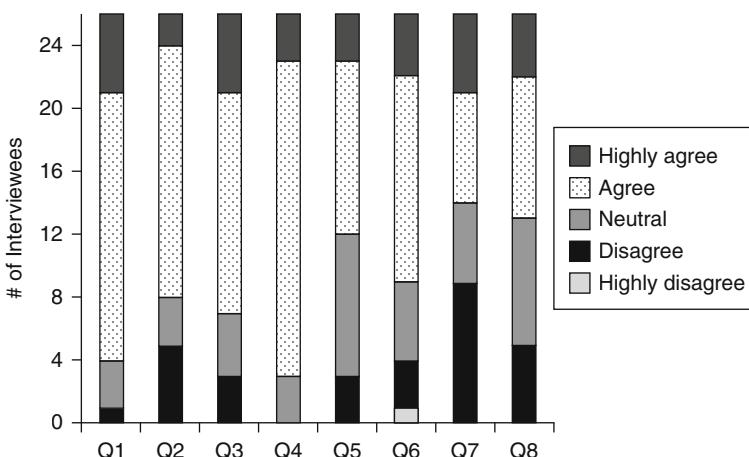


Figure 2.1 How social service organizations incorporate collaboration as their mission, operation capacity building, and responsibility

Note: This figure shows the answers of the 26 interviewees' responses to these eight questions: (1) if the organization proactively encourages its staff to exchange knowledge with others, (2) if the organization has an internal policy and procedure to promote collaboration, (3) if the organization has allocated hours for staff to perform collaboration, (4) if the interviewees believe that their partners can provide comprehensive services to the beneficiaries of the interviewees' organization, (5) if the organization can achieve its goal better through collaboration, (6) if the organization adopts assessment criteria to evaluate potential partners, (7) if the organization has competent staff to collaborate with the other organizations, and (8) if collaboration is part of the organizational mission.

and procedure to promote collaboration with other organizations, 17 interviewees reported that their organizations had adopted assessment criteria to evaluate their potential partners, and 19 interviewees reported that their organizations had allocated hours for collaborative activities.

However, less than half of the interviewees (11) think that their organizations have competent staff to collaborate with the other organizations. Furthermore, only about half of the interviewees (13) reported that their organizations had incorporated collaboration into their mission statement. Five organizations who reported that collaboration is not incorporated in their mission statements are subvention organizations. Also, just a little more than half of the interviewees (14) think that their organizations can achieve their goals better through collaboration. The results of these two questions are consistent because collaboration is not part of the mission statement and hence interviewees believe that collaboration with the others does not necessarily help to achieve its organizational goals. Meanwhile, there are those who believe that collaboration does not benefit their own organizations, but they do think that collaboration can help the social service provision in the community to be more comprehensive.

To capture how these social service providers manage their service boundary and acquire their clients, we asked them about their main strategies to reach out to their clients, including through volunteers, organizational members, staffs, general programs, training programs, case referral, internet, posters, and branch offices. From the results of the reported top three strategies, about 72 of the organizations reported that they reached out to their clients through their organizational members, 50 of them reached out to their clients through their volunteers, and about 46% reached out to their clients through case referrals from the other organizations (figure 2.2). These results show that the existing main strategies for client recruitment rely heavily on the existing members, volunteers, or staff of an organization while case referrals also play an essential role for serving the clients in their community.

To understand how organizations handle cases that are beyond their service scope and boundary, we asked them about the types of services they have referred to others in the past one year. The types of services referred to other organizations are as follows—18 (64.3 percent) of the surveyed organizations referred food aid needs to other organizations, 15 (53.6 percent) referred tortured women and girls to other organizations, 12 (42.9 percent) referred employment assistance needs, 12 (42.9 percent) referred medical treatment needs, 11

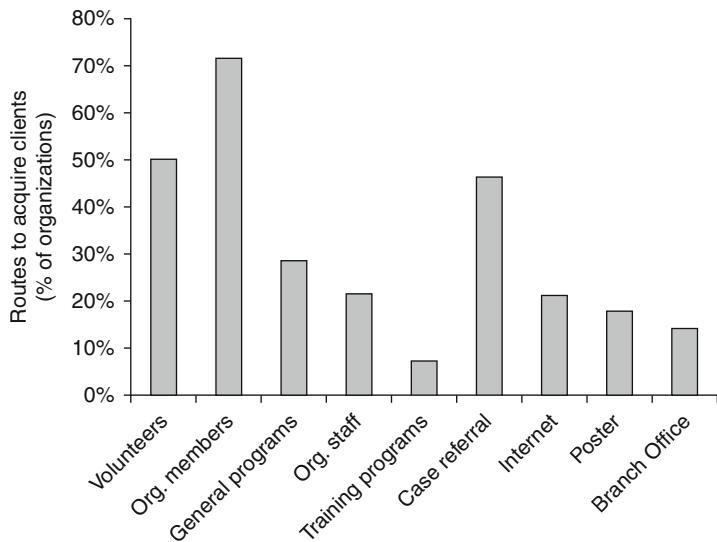


Figure 2.2 Strategies to seek out clients

(39.3 percent) referred tutoring and literacy needs, and 10 (35.7 percent) referred psychological health needs. Overall, these organizations have created a conducive environment to work together in an effort to meet the needs of welfare recipients and refer to other organizations for needs that cannot be fulfilled.

Now, we will turn to discuss our open-ended questions about their perception of the comprehensiveness and challenges of working in a collaborative governance system. In order to collect elaborate and fruitful responses, we asked the respondents to report their perceived comprehensiveness of the social provision system, the challenges faced in providing social services collaboratively in their district, and specific projects that facilitate inter-organizational collaboration, which shapes the collaborative governance, in their district.

Perceived Comprehensiveness of Social Service Provision

A majority of the respondents contended that the social security net in this collaborative governance system was apparently not comprehensive enough. Their elaborations indicated five factors that contribute to such incomprehensiveness, which include inadequate coverage and a mismatch of services of special needs and new demand, interorganizational turf war and competition, interorganizational conflicts

in values, constraints on funding and resources, and weak sense of community cohesion.

Challenges to Interorganizational Collaborations

Among the six factors, the prevailing factor that is the most commonly found is the inadequate coverage and mismatch of services. In other words, the services provided are generally insufficient to cater to the specific needs of the community, leading to an obvious disparity between the services provided and the pressing needs of the particular locality. For instance, despite the predominant elderly and youth problems in the community, several respondents have coincidentally pointed out that the services delivered in the community can rarely address prominent issues such as family violence, emotional problems of the youth, and the provision of medical and transport assistance for the elderly. One school has stated “Children express symptoms of dyslexia and emotional instability...but the community is relatively isolated and lacks welfare services such as child daycare.” This is also supported by local district councilor, “Provision of services is generally inadequate, especially in terms of medical resources, with only three to four clinics to support a population of 50,000.”

In particular, the local community is characterized by the prevalence of low-income households as well as new migrants, yet the respondents expressed their concern toward the limited community support offered by the service providers to these groups of stakeholders in need. The constraints on funding and resources would likely reduce the manpower to deal with the pressing issues of the community, which would then hamper interorganizational collaboration and shut down the communication channels among service providers. The quality of services would therefore be hindered. For instance, a local district councilor has further elaborated, “Constructing a network will add burden to their already heavy workload. To cope with the extra workload is indeed a challenge for us.”

Second, service providers may also compete for the limited resources and clientele that greatly reduces the incentive for engaging in collaborative actions. Service providers in Hong Kong are generally categorized according to the type of clients they intend to serve. It is therefore common that organizations will compete with their counterparts for the potential clients since they may be able to obtain more resources and get credits based on the number of clients they can successfully secure. For instance, an Activity Center explained, “Intense competition exists among organizations such that they are willing

to cooperate only when their interests are fully served, so there is a general lack of cooperative regime.” In addition, larger organizations may sometimes be reluctant to share their ideas and resources with others as they intend to obtain the lump sum grant on their own. A school has stated, “Some organizations are reluctant to collaborate with us and may even increase rental fee for venues.”

Third, interorganizational support is motivated by self-interest and organizations may sometimes be reluctant to share their clientele and resources with one another. For instance, organizations with political and religious affiliations may create in-group and out-group distinctions, thus affecting the mutual trust among organizations with diverse values. A Women’s Association has stated that, “To prevent their own resources from being divided... (a religious organization) is not willing to share vacant venue for hosting activities during emergency, and even ignores most of the invitation letters.” A local reading room affiliated with a religious organization has admitted that, “Christianity facilities collaboration only among organizations of the same religion, but often excludes other organizations.”

The ideological differences among service providers may form a barrier against interorganizational collaboration. Service providers with different religious and political background, vision and mission, service targets, and boundaries may find it difficult to effectively work together. Therefore, they tend to form collaboration on a superficial and short-term basis, or not form any at all. A religious organization stated that, “Organizations with different ideologies find it difficult to cooperate with one another. Such form of cooperation would be temporary even if it exists.” This point is elaborated by another Center for Death from a Christian organization, “To be honest, we rarely cooperate with organizations with a different religious background, such as the elderly centers with a Buddhist background.”

Political interference is also recognized by the respondents as a major obstacle due to the decrease in mutual trust and understanding upon the formation of political affiliations. A school has also pointed out that “Organizations have become more politically influenced and thus are polarized into pan-democratic and proestablishment camps. This reduces the mutual trust among one another.” Another library affiliated with the Church also mentioned how political influence might hinder the collaboration among social service providers in the community, “Organizations tend to remain neutral in terms of their political stance and would therefore avoid collaboration with organizations entrenched with political affiliations.”

Fourth, there are also several structural factors that hamper the collaborative dynamics among service providers. The eligibility requirements of services may create gaps that leave marginal cases unassisted by any service providers. It is revealed that nonsubsidized organizations are relatively more flexible and willing than subsidized organizations to address those gaps, since the latter is reluctant to expand their scope of services and construct social service networks. However, nonsubsidized organizations often face resource constraints in their outreach to individuals in need. Without institutional arrangements of collaborative networks from the government, they often struggle to seek for adequate resources to support their work.

Finally, owing to the weak sense of community cohesion and sense of belonging to the locality, people tend to resolve issues on their own and there is a general lack of care and interactions between families and groups. Service providers may not have the insight to engage in mutual cooperation with their counterparts within the same district. The community conception is relatively weak among individuals and organizations. A school administrator has observed “the prevailing norm among people is that ‘what happens in our family stays in our family’, so it is rare that they will seek help from others.” In addition, there is also a general lack of vision and broader planning of the entire community, as well as a prominent leadership to facilitate shared motivation. For instance, community activists may only look out for the interest of certain groups, but neglect the overall picture of the benefits brought about by constructing a large-scale interorganizational network. A children’s association has put it well: “We do not think cooperation is necessary. We may do the same thing, but we do it with different aims. It is difficult for us to cooperate and we only strive to avoid our services being repetitive of the ones provided by others.”

Specific Projects Catalyzed by InterOrganizational Collaboration

The respondents have identified a diverse range of projects that involve efforts based on interorganizational collaboration. They span across a spectrum of various aspects, which include medical assistance, parental education, extracurricular activities for students, elderly recreation and education, volunteer and job-hunting services, community support, festive events, and respective services dedicated to the migrants and the disabled. In particular, the following projects constitute a form of collaborative actions, which help shape the community social security network.

A local festival was organized by local district council and local Office of Home Affairs Department in 2010, aiming to improve the community conception and enhance the sense of belonging of the people within the community. During the festival, different organizations contributed actively to coorganize the event by providing various entertainment activities, such as hip-hop dancing, catwalk, singing, and rope-jumping performances. However, it was not until the event finally ended that the network dispersed within a relatively short period of time owing to the concerns of organizations.

Many organizations end their collaboration with one another after the events of Kwun Tong Festival. We work closely with the government, but we cannot be too involved with politics, especially when the election has just ended. (Religious Organization)

Other collaborative actions include “Get into Harmony,” “Opportunities for the Elderly Project,” “Helping Hand Program,” and “The Caring Elderly Campaign.” The respondents have identified several reasons for their successful implementation, which include the availability of funding and resources, as well as the fair and efficient distribution of work and manpower. The former is often achieved by collaborating with larger organizations and government agencies. Though these projects are not without their challenges, which include the limited outcome of the activities, and the lack of resources when there is no backup of funding and sponsors.

DISCUSSIONS AND CONCLUSIONS

The development of an effective social service delivery system remains a challenge to policymakers and implementers. Previous studies have focused on finding the right formula to make collaborations effective. In the past decades, systems have been transformed and redesigned to become more collaborative and effective, with experiments including one-stop service locations in the United States, integrative centers in Hong Kong, and the “no wrong door” policy in the United Kingdom. While these policies aim to increase the accessibility of social services, reduce overlaps, and close the gaps among service providers, front-line implementers still find themselves struggling to balance their normal caseloads with networking activities, such as meetings, planning committees, and joint events with other agencies, because reaching out to new partners or actors involves costs and risks.

Through examining the challenges that have naturally evolved among a group of local social service providers, this study reveals that

organizations with government funding have to follow guidelines, have strict eligibility requirements for clients, and are less flexible. They carry relatively more prestige in the collaborative governance system than other actors, and are also the best endowed in terms of resources. But these organizations are less willing to extend their partnership to more local, political, and younger organizations. They fit into Kettl's (2006) model and face more challenges to manage across boundaries in a collaborative governance system. The rest of the organizations, by contrast, do not have the same level of resources, but most of them are willing to reach out to other organizations in order to obtain resources. They are willing to create the most relationships and are flexible to fulfill new demands from the residents and clients, even if they are outside their service scope and boundaries.

To empower the central organizations with insufficient resources, the Hong Kong government has tried to build more bottom-up initiatives. For instance, the Community Investment and Inclusion Fund (CIIF) aims to develop social capital in the local community through nurturing partnerships and encouraging cross-sector collaboration. From 2002 to 2009, the CIIF allocated about HKD 200 million to support 209 projects. This funding allows more flexibility in partnership selection. For instance, collaborators in the existing projects include churches, women's groups, schools, businesses, residents' associations, hospitals, governments, legislative council members, and district councils. We hope that our study could provide some insights for implementing the collaborative governance of new community initiatives such as the CIIF in the near future.

NOTES

1. We initially identified 34 centers. However, two of them are from the same parent organization and conduct similar activities, so they were treated as the same organization.
2. We have also verified the information on the SWD website page.
3. Out of the six organizations, four of them are affiliated with Democratic Alliance for the Betterment and Progress of Hong Kong (DAB) and two of them are affiliated with the Pan-Democracy Party.

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P A R T I I

Partnerships in Policy and
Management

Policies, Collaboration, and Partnerships for Climate Protection in China

Berthold M. Kuhn

INTRODUCTION

Policymaking in the field of climate protection has taken off in China. The aggravation of the pollution problems in many cities, increased coverage of climate issues by national and foreign media, and international cooperation mechanisms are urging the political leadership to address the issue of climate change. This chapter discusses enabling and disabling factors for collaboration and partnerships between state, market, and civil society actors in the field of climate protection.

It is inevitable that the carbon emissions of China will soon surpass one-third of the global carbon emissions, if China follows the old energy-intensive development model of Western economies. The International Energy Agency (IEA) estimates that about half of the growth in global energy-related carbon dioxide emissions from 2009 onward until 2030 will come from China (IEA 2009; SEI 2013). Experts from the Chinese Academy for Environmental Planning have come to the conclusion that, “China is facing a severe challenge of imbalance in economic growth and CO₂ emissions” and they recommend “a comprehensive, systematic, and scientific scheme for implementing a low carbon society” (Cai, Wang, Liu, and Cao 2012: 106). International organizations, such as the World Bank, collaborate with China in pushing sustainable low-carbon city development (Baeumler, Ijjasz-Vasquez, and Mehndiratta 2012).

In China, like in many other countries, the climate protection discourse is mainly an elite-driven discourse. However, the rich and

the poor, the center, and the periphery are all concerned by climate change and its consequences will further aggravate the rich–poor divide (Beck 2012). Climate protection, thus, is not only an environmental policy issue. But, it is also a challenge for the preservation of “social harmony.” Furthermore, it is considered to be a key element of China’s image in the world and its foreign policy.

This chapter is based on an analysis of policy documents, newspaper reporting, and information gathered in the context of projects, conferences, workshops, and discussions with Chinese and international experts during my two-year professorship (2012/2013) at Xiamen University.

CLIMATE PROTECTION: AN EMERGING POLICY AREA

Enabling and Disabling Factors

The process of policymaking—from agenda-setting to policy formulation, implementation, monitoring, and evaluation—is of a comprehensive nature. It usually involves time spans of a decade or more, the participation of multiple levels of governments, and other stakeholders as well as a series of programs and projects (Sabatier 2007: 3).

Climate change is an abstract issue. Its various causes and remedies—mainly mitigation and adaption policies—are subject to scientific and political controversies. Several factors at the national and international level have contributed to increase China’s commitment to climate protection. The launch of emission trading schemes in several cities and regions provides a major opportunity for the further evolution and consolidation of climate protection governance mechanisms at central, provincial, and local level. The National Development and Reform Commission (NDRC) is the leading authority with the most comprehensive mandate in addressing climate change issues. Its climate change department is responsible for comprehensively analyzing the impact of climate change on social-economic development, organizing and coordinating the formulation of key strategies, plans and policies dealing with climate change, taking the lead in the implementation of the United Nations Framework of Climate Change Convention, and in collaborating with other relative parties in international climate change negotiations (NDRC 2014). Other ministries—in particular the Ministry of Foreign Affairs, the Ministry of Science and Technology, and the Ministry of Environment—as well as agencies and subnational authorities are also

involved in designing, monitoring, and adjusting climate protection governance mechanisms according to sector, provincial, and city-level characteristics.

However, there is no clear-cut division of roles and responsibilities between different ministries and agencies. Specific obligations, responsibilities, and burden sharing between NDRC and other government agencies have not yet been defined (Swartz, 2013: 9). Climate protection is yet another policy area where China is open to institution and policy innovations. China's climate protection policy includes both command-and-control and market-based mechanisms. Command-and-control mechanisms refer to authoritative measures involving law-making, regulations, authoritative high-level targets, standards-setting, and the development of a system of fines and punishments to enforce compliance. Market-based mechanisms involve tax incentives and disincentives, carbon emissions trading schemes, access to loans, procurements rules, and other subsidies and incentives to invest in, and to operate clean technologies. Campaigns for divestments in fossil fuel industries have recently made headlines, too.

China launched many low-carbon projects and awareness raising campaigns. While it is largely upholding its reservation on internationally binding emission cuts the process of policy development at national level has been one of growing commitment without major setbacks. The Third Plenary Session of the 18th China Communist Party Central Committee in November 2013 put renewed emphasis on the theme of "ecological civilization" featuring rules to protect the ecological system. The commitments are ambitious and the relevance for climate protection is high though the specific reference to it is limited. Market-based mechanisms receive good attention. Section 14, paragraph 53 reads:

Establish a system of paid use for natural resources ecological compensation. Accelerate reforms of natural resources commodities pricing, and gradually levy taxes on all kinds of natural resources and space. Increase the price of industrial land. Develop a market for environmental protection and push ahead with a trading system for pollution discharge, carbon emissions, and water rights. (Chinese Communist Party, November 2013)

The Pollution Factor

The fifth report of the Intergovernmental Panel on Climate Change (IPCC 2013) presents ample evidence that human activities are the main cause for recent climate change. Anthropogenic contributions

are responsible for the greenhouse effect triggered to a significant degree by polluting industries such as coal firing plants.

It is unequivocal that anthropogenic increases in the well-mixed greenhouse gases (WMGHGs) have substantially enhanced the greenhouse effect, and the resulting forcing continues to increase. (IPCC 2013: Chapter 8–3)

Low-carbon policies to curb emissions of greenhouse gases, notably carbon dioxide and methane usually include measures related to transport, industrial production, construction, and waste management. Other factors, such as cattle raising and agricultural practices, also make significant contributions to emissions and, thus, contribute to the complexity of promoting effective low-carbon policies and lifestyles.

Air pollution is one of the key factors for the growing awareness of climate change in China. Natural disasters such as typhoons and floods are other important factors. China had about 500 air quality observation points installed in 74 cities in 2012. Most Chinese cities suffer from air pollution. Seventy out of 74 monitored cities were classified “polluted cities” in October 2013 (Xinhua, October, 22, 2013). Air Quality, a mobile application, runs on millions of smartphones in China.

Vehicle exhaust emissions have become the main contributor to deteriorating air quality in big Chinese cities (Wang 2010). Thus, the reduction of exhausts in congested city areas is among the most visible and popular measures to address climate change. China has experienced a significant increase in private vehicle use and traffic congestion. Some first-and second-tier cities in China, including its capital Beijing, have been exposed to the negative consequences of pollution in a dramatic way and have introduced restrictions of registration or use of private vehicles.

The Media Factor

Chinese media experience a relatively high level of indirect and direct control and censorship by party and state authorities. Western media often criticizes China for its lack of political freedom. The major Chinese media players are known for echoing government policies and promulgating political opinions of the CPC leadership rather than sparking public debate and critically reviewing government performance. For a long time, the focus of political communication in China has been on social and political stability and economic growth.

However, Chinese journalists have also produced investigative stories about “cancer villages,” and with reports on river, lake, and air pollution. Environmental issues have recently made headlines, particularly after January 2013, when air pollution reached record highs in Beijing. For the last few years journalists have shown a growing interest in pollution and environmental issues. Many of them have contacts in independent NGOs who give journalists critical information. When air pollution in Beijing reached peak levels in January 2013, *China Daily* reported on the growing media interest in environmental issues:

Environment becomes priority. Public focus has shifted in recent years, especially with heavy smog in the capital. Journalists usually report social changes, but sometimes they signify the changes themselves. Recently, journalists flocking to a news conference on the environment outnumbered—for the first time—those at the conference about the economy, on the sidelines of the ongoing annual meetings that bring together Beijing’s legislators and political advisers. That reflects the shifting focus of the public—Beijingers increasingly care about the environment instead of economic growth. Fang Li, spokesman for the Beijing Environmental Protection Bureau, was the media’s most-wanted man. (Cao and Haixing, *China Daily*, January, 25, 2013)

The research project “Climate Change Awareness, Role of NGOs, and Citizens Participation in the P.R. China: A Survey of Experts” conducted by Xiamen University’s School of Public Policy collected opinions of experts through questionnaires and interviews. The results underscored that media attention on climate change issues is growing. Chinese researchers evaluated the current level of media attention higher than international experts (Kuhn and Zhang, 2014). A workshop in Chengdu in March 2013 highlighted the growing role and influence of social media in China, in particular Weibo and WeChat. Participants acknowledged the sound environmental knowledge of some bloggers (Kuhn and Zhang, 2014). *China Daily*, together with *Global Times*, the leading English daily, pays more attention on green issues and sometimes adopts a critical stance on reforms:

To effectively curb pollution, it is necessary to grant the ordinary people and social groups the right to sue those who pollute the environment and make them pay for their deeds. Hopefully, legislators will consider the interests of the public and lift the ban on them bringing public interest lawsuits. (*China Daily*, October, 23, 2013)

Citizens and social media play a nonnegligible role in the production of public goods and services in many countries. Meijer (2012) pointed out that social media is a facilitator of coproduction because the costs of connecting to citizens have been reduced drastically and the new technologies create opportunities to interact 24/7. The media holds the promise of strengthening coproduction in an information age. Climate protection is an abstract and complex issue. Social media already plays a significant role in facilitating quick information sharing on risks of pollution, quality of food and water, concerns on waste issues, and good practices and lifestyles. Blogs and tweets are also expressions of lifestyles. Many environmental and climate protection activists are active bloggers. Social media educates people on new policies, business incentives, and awareness raising projects. They build social capital and contribute to altering perceptions of climate change from a global to a local problem (Adger 2010: 342). In China, the government shows concern about the role of some high-profile bloggers and monitors them closely.

About 300 high-profile microbloggers play a part in setting topics on the Internet, especially in emergency accidents and public issues. Their influence tends to exceed that of government micro-blogs and traditional media...at least one third of the high profile bloggers play crucial roles in the launch of some online campaigns, and another one-third play a part in it. (Chinese Academy of Social Sciences, 2014; Xu, *China Daily*, December, 26, 2013)

The International Cooperation Factor

China is still perceived as a hardliner in international climate protection negotiations (Zhang 2013:1). However, it has been among the first nations to develop low-carbon policies. China's international cooperation at different levels—participation in global summits and conferences, joint implementation of CDM projects under the Kyoto protocol, academic exchange and cooperation—contributed to its growing engagement with climate protection and the development of low carbon policies. Thus, we may formulate the hypothesis that international cooperation is another key driving factor for climate protection at the national level. However, we need to distinguish between the influence of international conferences—China's talks with countries active in climate protection—and other alliances of China. China's political alignment with transitional and developing countries—most of them are reluctant to make a commitment on climate protection—has perhaps been a refraining factor for advancing further dialogue on climate protection with industrialized countries.

Mainland China regained its permanent seat in the Security Council of the United Nations in 1971. Resolution 2758 of October 1971 recognized the People's Republic of China as the only lawful representative of China to the United Nations. Thereafter, China sought for opportunities to show its presence on the stage of world politics. China's participation in the United Nations conference on the Human Environment in Stockholm in 1972 was a suitable opportunity and an important step for Chinese diplomacy to show its reemergence on the world stage. China also participated actively in other landmark environmental conferences, such as the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 also known as the Earth Summit. Its participation in the Rio Conference in 1992 led to important reforms of its domestic environmental laws and governance including issues of public participation. China's Agenda 21—White paper on China's Population, Environment, and Development in the twenty-first century (1994) formally recognized the important value of sustainable development and public participation, including the role of environmental NGOs (Zhao 2012).

The Rio Conference and its follow-up process at national level and China's first bid to host the Olympic Games in 1993 encouraged the development of independent environmental NGOs in China, both from the perspective of the political leadership as well as environmental experts. The strong participation of many independent environmental NGOs in Rio made the deficits of China, in terms of institutional capacity and multistakeholder involvement in environmental protection, so obvious that several initiatives and organizations were launched thereafter.

The China Association for NGO Cooperation (CANGO) was founded in 1992 and developed from a government organized entity under the umbrella of the China International Center for Economic Trade and Technical Exchanges into a relatively independent NGO network with more than 140 members in China and more than 170 partner organizations across the globe. The organization benefited greatly from international development cooperation, in particular with Germany. Several experts of the Centre for International Migration and Development worked as in-house advisors at the CANGO office in Beijing and also at the level of member organizations of CANGO. International cooperation was a key factor that inspired CANGO to take up work in the field of climate protection. It is an active member of the China Climate Change Action Network and runs a Climate Change Education Project for Middle-Schools.

China's first independent environmental NGO was formally registered on March 31, 1994, under the name "Academy for Green Culture." It now carries the name "Friends of Nature" and has many branches in China. Global Village of Beijing and Green Home were among other pioneering independent NGOs that emerged in the mid-1990s. All three NGOs as well as many others received substantial funding and cooperation from abroad.

Green discourses at the international level, in academia as well as in international diplomacy, networking, and practical cooperation at the level of many environmental projects facilitated China's relatively early interest and commitment to the issue of climate protection. China ratified the Protocol to the United Nations Framework Convention on Climate Change, which was adopted in Kyoto, Japan, on December 11, 1997. The protocol was open for signature from March 16, 1998, to March 15, 1999, at the UN headquarters in New York. China signed the protocol on May 29, 1998, and ratified it on August 30, 2002.

Under the Kyoto Protocol, China greatly benefited from its status as a developing country. Unlike the industrialized countries, it did not have to agree to binding cuts of greenhouse gas emissions and has by far become the largest benefiter of projects under the Clean Development Mechanism (CDM). CDM as defined in Article 12 of the Kyoto Protocol allows industrialized countries to buy Certified Emission Reduction units produced by CDM project and, thus, to invest in emission reduction where it is cheapest globally (Grubb 2003: 159)

China's economic ascension has become one of the key factors of the growing difficulties of international climate protection negotiations. This became evident at the Copenhagen summit (December, 2009) and the subsequent Conferences of the Parties (COP) of the United Nations Framework Convention on Climate Change, where China was heavily criticized by European countries in particular.

Being the largest emitter—29 percent of total global emissions (Global Carbon Project, 2014)—and the largest manufacturer in the world, it seems unacceptable for the industrialized countries in Europe to exempt China from legally binding emissions and financial and technological transfers to developing countries. While China has so far remained a hardliner in international negotiations it has stepped up its effort at national, bilateral, and also multilateral levels to address climate protection and to anticipate its obligations toward poorer countries. Chapter 9 of the NDRC publication "China's Policies and Actions for Addressing Climate Change" (NDRC 2013) focuses on "Enhancing International Exchanges and Cooperation" and includes

a section on “Deepening Cooperation with Developing Countries.” The document explains how China has followed up its announcement at the Rio+20 conference in Brazil to make available 200 million Yuan for a three-year South–South project on climate change. China has established cooperation with 41 developing countries and signed the memorandum of understanding on “Providing Foreign Aid to Address Climate Change” with 12 developing countries. The commitments could be seen as preparatory steps to fulfill growing obligations at the international level and to present itself as a more proactive partner in climate protection. The growing engagement with climate protection at international level will further stimulate the process of policy development at national and subnational level.

COLLABORATION AND PARTNERSHIPS

Enabling and Disabling Factors

The strong nexus between the public and the private sector presents opportunities and also threats for effective policy implementation in the field of climate protection. Many of the most energy-intensive industries are state-owned. However, the state-owned enterprises also possess substantial lobby power to weaken the reform agenda, according to their interests. The International Emission Trading Association (IETA) reckons that a major threat to a nation-wide Emission Trading Scheme will stem from the resistance by its SOE (Swartz 2013: 9).

The private sector is largely fragmented and many small and medium enterprises escape official control of government either because of lack of monitoring capacity, negligence linked with personal favors by local elites or corruption. The government aims to develop further incentives for manufacturers of low carbon technologies to tap into their innovation potential and win their compliance.

The authoritarian nature of the political system in China exhibits some disadvantages for extending collaborations and partnerships beyond institutions closely related to the party-state. The freedom of associations is more limited than in many other multiparty countries. NGOs are evaluated and classified in terms of the personal affiliation of their leaders and staff to the party or state institutions. Most advocacy campaigns in China are orchestrated by the government.

The government is concerned about retaining control over public discourses and action and seeks partnerships mainly in the context of clearly defined rules of command and hierarchy. However, it also needs the support of nonstate actors to tackle environment and

climate protection in a less fragmented way than in the past decade. From a conceptual viewpoint, the term collaboration is less result-oriented than cooperation and coproduction. This makes “collaboration” the more appropriate term for conceptualizing the emerging interaction and the nascent partnership culture between government and other stakeholders.

A recent survey of environmental and climate protection experts in China (Kuhn and Zhang 2014) suggests that the government is the key reference point in raising climate change awareness in China. However, the study also finds that other actors, including research institutes and NGOs, make valuable contributions, too. Exchange and interaction between government, international experts, and other stakeholders, in particular NGOs, is still sensitive in China as the issue involves a foreign-policy dimension. Two Rio +20 follow-up conferences in the low carbon city of Xiamen in December 2012 obtained approval approvals of NDRC and several ministries only shortly before the scheduled event. The conferences in Xiamen were rare examples of multistakeholder interaction on climate protection issues in China. Officials from the cities of Guangzhou and Xiamen discussed with researchers, NGO activists, journalists, and bloggers about resource efficiency and recycling in the context of the agreements reached at the Rio+20 conference in June 2012 in Brazil.

The Government Perspective

The Chinese government has demonstrated a relatively timely response to climate change. China signed the United Nations framework Convention on Climate Change in 1992, established a National Climate Centre (1995), joined the Kyoto Protocol (1998), passed a National Renewable Energy Law (2006), established a National Leading Group on Climate Change, approved a National Climate Change Action Plan (2007), and upgraded the State Environmental Protection Agency to the rank of a ministry (2008). China designated low-carbon cities and provinces in 2010. The 12th Five-Year Plan (FYP) adopted by the Chinese government in March 2011 (Government of China 2011) devoted considerable attention to energy and climate change. Its key targets include:

- Reduce CO₂ per unit of GDP by 40–45 percent relative to 2005.
- Increase the ratio of nonfossil energy to the consumption of primary energy to 1–5 percent.
- Increase the ratio of nonfossil energy to the consumption of primary energy to 11. percent.

- 17 percent reduction in carbon intensity (carbon emissions per unit of GDP).
- Reduce national energy consumption per unit of GDP by 16% relative to the end of 11th Five-Year Plan.

NDRC has published a comprehensive strategy paper on “China’s Policies and Actions to Address Climate Change” (NDRC 2013) in November 2013. The State Council Information Office (SCIO) reconfirmed China’s commitments and targets of the 12th Five Year Plan in the policy document China’s Action Plan to Address Climate Change 2014–2020.

The structure of the Chinese economy and society allows the government to exert strong influence on the private sector and NGOs. China is pursuing some liberalization policies, but the major thrust is one of “revamping, restructuring, and ultimately, strengthening state control and guidance over the political economy” (McNally 2013: 45). A growing number of high-level policy documents refer to climate change. Following the establishment of the National Leading Committee on Climate Change in June 2007, several new institutions and projects have been started throughout the country. Conrad (2010) termed the expression “bureaucratic land rush” to describe the competition over new responsibilities allocated to ministries and agencies in the context of emerging climate protection policies.

However, climate protection may not yet be regarded as a fully-fledged policy area. Competencies cut across the mandates of several ministries and agencies. Reference to climate protection is still predominantly made in an indirect fashion, mainly in the context of ecological civilization or environmental protection.

The path dependency in the energy sector is strong. The country’s percentage of total primary energy use stemming from coal still accounts for around 65 percent. Dirty business as usual is the key challenge for achieving ambitious targets. The implementation of low-carbon reforms also requires an enormous administrative and monitoring capacity and a high level of integrity of public sector employees.

The top-down fashion of reform implementation makes it difficult for other stakeholders to monitor the implementation of the reform. Specific reports and data of implementation of reforms are seldom made accessible to the research community or the public. News agencies and media occasionally report on the shortcomings of achievements of reform targets and implementation of policies. With regard to the 17 percent carbon intensity reduction target by 2015, Xinhua reported

that in the first two years, it was only reduced by 6 percent according to a report submitted to the bimonthly session of the Standing Committee of the National People's Congress (Xinhua, December, 26, 2013).

The political leadership in China is concerned about stability, control, and effective implementation of reform. However, it has recognized the crucial role of the private sector. The Third Plenary Session of the 18th China Communist Party Central Committee provided renewed evidence for market-based development visions. The government has also acknowledged that some NGOs provide valuable services in line with government policy priorities, especially in the social sectors.

The preparedness of the government to further enlarge the role of the private sector and involve relatively independent organizations in the provision of essential services fits in the analytical framework of "adaptive, innovative, and experimental governance." This has become the state-of-the-art approach to understand the continued stability and growing flexibility of Chinese politics and governance. This is all the more remarkable as conventional political science models of regime types attributed almost no adaptability to Communist party-states:

Communist political systems are judged to be inflexible and incapable of continuous improvement in administrative organization, economic coordination, technological innovation, and international competitiveness. (Heilmann and Perry 2011: 2)

Recent analysis of the political system of China and its governance style have emphasized the factors of adaptive governance (Heilmann and Perry 2011), experimentation and learning through practice (Heilmann, 2011; Wang 2011), and the role of local innovations in the process of national reforms (Florini, Lai, and Tan 2013).

The Chinese government has set up several funding opportunities for NGOs with the purpose of enhancing service quality and extension in providing elderly care and community services. Environmental NGOs may qualify for such funding support, if they emphasize the service provision aspect at the community level. Advocacy will typically not qualify for government support. Central government schemes providing funding up to RMB 500,000 was launched in January 2014. The Department of Civil Affairs is screening the applications. Funding is reserved for project activities only. Guangzhou runs a scheme for operational support to NGOs up to RMB 300,000. Ecocommunity development is among the funding priorities.

The role of NGOs as agenda setters and advocacy networks is much less accepted by the government. The Chinese authorities may find it easier to embrace the coproduction discourse rather than the cogovernance discourse. The latter may be seen as a challenge to the leadership role of the party and the competence of the state administration.

Coproduction with its focus on the output level and on citizens' participation—as reflected in the dominant discourses in the US and continental Europe (Pestoff 2012: 1107)—comes across as an opportunity for increasing the effectiveness and efficiency of policy implementation. The capacity and outreach factor play a major role in explaining the preparedness for governments to involve other stakeholders in service provision. Vamstad (2012) highlighted the difficulties of the public and the for-profit sector to promote greater citizen participation and client-coproduction. His research underscores the theory of comparative advantages of NGOs to promote citizens' participation (Kuhn, 2005 2009). Governments encounter lower ceilings of coproduction levels by citizens than nonprofits. Such findings correspond with Ostrom's (1999, 2000) analysis on crowding-in and crowding-out effects. Civil society organizations would often better harvest intrinsic motivations of citizens to volunteer, to engage, and to coproduce public goods whereas government agencies face difficulties in promoting voluntary civic engagement. However, research on crowding-in and crowding-out effects of government versus civil society engagement has not been conducted in China so far, where volunteerism is more connected with government institutions than in other parts of the world.

The Private Sector Perspective

The leading state and private sector entities in China are strongly integrated into the world economy, and exposed to fierce competition and many international and regional trade disputes. China's solar industry has suffered from serious trade disputes with the European Union. Pressure on technological innovations is high in China. The state is heavily involved in the economy and plays the role of an institutional entrepreneur (Ten Brink 2012: 241). Jessop (2002) and Ten Brink (2012) refer to the term of “schumpeterian state” when describing the political and economic mission of the government to promote make innovation the central theme of the economic policy.

China's command-and-control as well as market-based-mechanisms in the field of pollution control and climate protection are affecting the private sector in terms of licenses of operation, use of technology,

permitted levels of greenhouse gas emissions, access to loans and tenders, and purchase of mandatory pollution insurances and fines. The most drastic interventions are shutdowns. Approximately 200 polluting factories were shut down temporarily in Beijing in 2013 (*Zheng, China Daily*, December, 26, 2013). The private sector also draws many benefits from the government—direct and indirect subsidies, preferential access to investments and loans, joint ventures with foreign companies, and state funding of research and technology.

Recent policy documents issued at the Third Plenary Session of the 18th China Communist Party Central Committee emphasize the role of the market in future reform-oriented policies by highlighting the protection of property rights of all kinds of ownerships.

The government protects the property rights and legitimate interests of all kinds of ownerships by ensuring that various ownerships have equal access to production factors, open and fair market competition, and the same legal protection and supervision. (CPC 2013, Section 2, Paragraph 5)

The lobby power of major state-owned enterprises against stricter environmental regulations is a major concern of the political leadership. This explains the strong commitment of the leadership to provide a level playing field for different kinds of enterprises, state-owned, mixed, and private. The leadership aims to safeguard its ability to guide the economy, increase its capacity to successfully implement reform policies across the country, and set effective incentives for reducing pollutions and lower greenhouse gas emissions.

Enterprises of all kinds are heavily reliant on government policies and regulations and have, thus, stepped up their efforts in influencing government policies through different channels. Every sector, from mining to computers, is heavily regulated at every stage of business, including acquiring a business license, obtaining finance, engaging in research and development, production, sales and distribution, and distributing profits and paying taxes. Since these regulations directly affect the profitability of multinational companies and local industry alike, there is a strong incentive for firms to pay attention to and influence the policy process. (Kennedy 2007: 183)

Firms have made substantial efforts to influence the policy process, in particular energy-intensive state-owned enterprises. They also seek to dilute the effectiveness of regulations that would negatively affect their business, in particular those regulating pollution levels. The lobby power of firms and the informal character of many collaborations

and partnerships, in particular at the local level, have undermined the effectiveness of laws and regulations and led further to fragmented implementation, to personal enrichments, and corruption scandals.

The major Chinese private enterprises are dealing with innovation challenges through collaboration and partnerships with leading international consulting firms, universities, and research institutes. Multinational consulting companies have introduced innovative concepts, strategies, and technology to develop new visions and address future challenges for state-owned and private enterprises in China. PwC has developed a sustainability maturity curve (SMC) describing different phases of development of companies—from compliance, to operational effectiveness, to leverage, and eventually to leadership; and from risk management to managing for value leading eventually to a strategic advantage (Loh 2012: 78). The Urban Sustainability Index has been developed through a partnership between Columbia University, Tsinghua University, and McKinsey. The index measures the relative performance of Chinese cities across a set of sustainability categories and indicators (www.urbanchinainitiative.org).

The introduction of the concept of corporate social responsibility (CSR) in China has provided new opportunities for partnerships and collaboration between the private sector and NGOs. The number of CSR reports in China has increased over the years and reached 1,000 CSR reports in 2010, an increase by 30 percent compared to 2000.

In recent years, China has seen a significant increase in sustainability reports, an important source of information with respect to environmental, social, and governance (ESG) indicators. The consulting firm SynTao publishes an annual report called “A Journey to Discover Values: Sustainability Reporting in China.”

The Carbon Disclosure Project is another example for the private sectors engagement with climate protection in cooperation with an international initiative. In 2013, Carbon Disclosure Project China requested climate change information from the largest 100 companies by market capitalization in China, based on the FTSE China A 600 and FTSE All World Asia Pacific Indexes and published the company responses on its website (www.cdp.net).

China has made commitments to launch several carbon emission trading schemes at national, provincial, and city level. The climate protection effect of emission trading schemes basically depends on four factors: (1) the selection of the participants, (2) the allocation of pollution rights to the participating industries and firms at the outset of the program, (3) the build-in cap factor over the years, and (4) the administration and monitoring capacity.

The more polluting industries and firms participate, the higher the relevance and impact of the scheme. The less generous the allocation of emission rights at the outset, the stronger the incentives for the participants to cut emissions. The cap factor gradually reduces the total amount of allocated emission rights within the system and provides an incentive for trading emission rights. Firms that are meeting clean production standards earlier than others gain an extra competitive edge over those delaying technological upgrades.

The European Union's Emission Trading Scheme (EU ETS) currently shows little impact on climate protection because the allocation of the emission rights was too generous and the cap factor was too small. The poor economic growth in the past years reduced the emissions of participating firms to such an extent that trading emission rights became almost redundant. The price for additional emissions fell sharply.

Since the emergence of the EU ETS in 2005, many other emission trading schemes have been developed, including schemes in the United States (Northeast US Regional Greenhouse gas Initiative, RGGI; Western Climate Initiative, WCI), New Zealand (New Zealand Emission Trading Scheme), and Japan (Tokyo Metropolitan Trading Scheme). In 2011, the global carbon market reached \$142 billion (Han et al. 2012: 8). One of the expected merits of carbon emission trading is the positive effect on awareness and data collection.

Carbon emission trading has the potential to prepare the ground for comprehensive monitoring and, subsequently, reducing carbon emission. Skeptics such as Josef Fell, international climate protection activist, member of the German Parliament (Green Party), and founder of the Energy Watch Group, however, consider carbon emission trading schemes as overrated. They criticize the strong lobby power of participating industries and the design flaws of many already existing systems.

The expected take-off of emission trading schemes in China, in particular in Shenzhen, Shanghai, and Beijing; presents a major opportunity for the private sector to demonstrate its commitment to climate protection by seeking collaboration with research institutes, consulting firms, experts, and NGOs in their endeavor to identify technological, logistical, and other solutions to cut emissions. The success of the industry will also depend on consumers' demand and behavior, for example in the hotel industry, which is supposed to be involved in the Shanghai Carbon Emission Trading Scheme.

Leading international environmental experts have recognized the relevance and the magnitude of carbon emission trading for China:

China has embarked on one of the largest endeavors in climate economics ever, to establish a national carbon emission trading system by 2015 (Stockholm Environmental Institute 2013).

The Civil Society Perspective

The theory of specific comparative advantages, disadvantages, and dilemmas of civil society organizations (Kuhn 2005 2009) has been adopted for explaining the potential and limitations of civil society organizations in promoting climate protection through advocacy work, awareness raising, and community mobilization. The theory facilitates an understanding of typical strengths, weaknesses, and dilemmas of different types of institutions in service delivery and problem solving: government agencies that are strongly driven by power, hierarchy, and compliance with rules and regulations; private business sector, which is characterized by profit and growth orientation; and civil society organizations that are driven by values, voluntary spirit and are chiefly concerned about their reputation. Adapting the theory to China, it suggests that NGOs might play a marginal yet an indispensable role in promoting climate protection.

Civil society is a contested concept, in particular in China. The party-state curtails the freedom of independent NGOs. However, the third sector* has still experienced a remarkable growth and development. It accounts for more than 500,000 registered organizations and many unregistered, but largely tolerated grassroots organizations. NGOs have entered into various forms of partnerships with government agencies at different levels, in particular in social sectors. An analysis of Hsu and Hasmath (2015) suggests that the new generation of NGOs in China tend to be action-oriented and seek close interaction with government authorities rather than prioritizing information gathering and knowledge development. Such analysis might come to the surprise of those who presume that strict regulations impose major hurdles to cooperation between NGOs and government in China and that NGOs therefore focus more on information gathering, knowledge development, and building their own epistemic community.

The government has recently eased registration requirements for charities and industrial organizations and those organizations working in the field of science and technology as well as community development. The central and provincial governments have set up funding schemes for NGOs. Capacity building of local NGOs is supported by many larger and smaller foundations in China. Social enterprises receive special attention in China as they often exhibit innovative and

dynamic approaches to tackle social needs and environmental concerns. Many are skillfully engaging in public relations and marketing of their vision, business approaches, and services. They seek to bridge economic with social purposes.

NGOs in China have entered into many partnerships and different forms of collaborations with government agencies, research institutes, universities, and international organizations. However, their involvement in the policy process is seldom well-structured and transparent, and much depends on the charisma, reputation, and personal relations of the NGO leaders. The focus of government–NGO interaction in China has been on the output level for a long time, at least from the perspective of the government. The growing concern about environmental issues may enlarge the space for NGOs in advocacy work and agenda setting.

Their freedom and level of cooperation with the government greatly varies across different regions. In Guangdong province, in particular Shenzhen and some districts in Guangzhou, the local government engages in a proactive approach of collaboration and cooperation with NGOs. NGOs in Beijing and Shanghai have also gained a lot of credit with the government partly because of their outstanding expertise, good networking, and many partnerships with international organizations and foreign NGOs. In Hangzhou, the NGO Green Zhejiang, established in the year 2000 under the leadership of Xin Hao enjoys support from government as well as local business (Zhejiang Suncha Bamboo and Wood Co Ltd.) in addressing water pollution issues and, more recently, climate protection. Its mission is to promote low-carbon lifestyles and the open publication of environmental data and enhancing public awareness of environmental protection. The organization developed a digital map for pollution monitoring.

In Xiamen, though a low-carbon city, the local NGO Green Cross Association experiences more difficulties in obtaining freedom and support for its advocacy and awareness raising oriented project work than other NGOs in Zhejiang province and other areas. Green Cross Association enjoys good cooperation with professors of Xiamen University and international experts. The local government has supported some publications and awareness raising campaigns on recycling issues, but seems to resent that the leader of the organization, Ma Tiannan, is not a party member and that the organization engages with the Danish Institute for Human Rights in an ambitious environmental advocacy project. The renewal of the registration of the organization has been pending for several months in the year 2013.

A disabling factor for the collaboration and partnerships of environmental NGOs with government agencies is related to the suspected involvement of NGO staff in street protests against polluting industries and incineration plants. In Xiamen, the street protest movement against a Paraxylene Plant made headlines in June 2007. The project was eventually moved outside the city of Xiamen. Similar protests occurred in Dalian in 2011 and in Kunming in 2013.

Leadership of independent NGOs in China often exhibits a strong charisma factor. Xin Hao of Green Zhejiang and Ma Tiannan of Green Cross Association Xiamen are outstanding examples of relatively young and dynamic NGO leaders. Their work and lifestyles appeal to many of their volunteers and social media followers. However, it is more difficult for them, especially for Green Cross Xiamen, to find competent long-term staff. Salaries are low in the NGO sector in China. This contrasts with the expectations of many families in terms of salary. Parents are advising their children to get decent and stable jobs. It is an important factor when considering a marriage in China. NGO funding support and project work is often erratic and involves a significant degree of troublesome accounting work and troubleshooting with tax authorities and other government departments.

The setting up of government funding schemes for local NGOs may provide opportunities to develop new partnerships for climate protection and promotion of low-carbon lifestyles. Government funding, however, will come along with evaluation criteria, expectations, and other strings attached, in terms of comprehensive reporting but also in terms of cooperative attitudes and, perhaps, disengagement with environmental protests.

Universities are including more environment subjects in their course curricula and students show a good interest in learning about the complex issues of climate change and climate protection, which cuts across several academic disciplines. The interest in NGO work is high among the students. If more partnerships could be developed with government agencies and the private sector, China could possibly harvest the high-level commitment of many young people influence their lifestyles, and the education of their children in terms of climate change awareness.

Climate change awareness may have an impact on lifestyles but it should not be overrated, too. A study by the Beijing based NGO Green Beagle (2012) has found no direct correlations between environmental awareness of households and environmental behavior measured in terms of low-carbon footprints of household members. Carbon footprints relate more to income levels, mobility, and established

consumer habits than to environmental awareness. On average basis, Chinese people currently emit 6.9 tons of carbon dioxide per annum whereas US citizens emit 18.1 tons (Plöger and Böttcher 2013: 77), Western European citizens emit around 8 tons and India citizens around 1.4 tons.

CONCLUSIONS

There is ample evidence of reform-oriented policies and projects in the field of climate protection in China. However, the degree of coherence, the level of compliance, and the quality of implementation exhibits some shortcomings. Climate protection is a complex issue that cuts across the mandates and competencies of different ministries, government agencies, and other stakeholders. The NDRC is the key coordinator. New institutions and initiatives have been started to prepare the ground for a more comprehensive approach to address climate change.

Climate change is still predominantly dealt with in a top-down fashion and remains a somewhat politically sensitive issue. Access to information on achievement of political targets and projects remains difficult. The media occasionally reports on shortcomings of the implementation of reforms. NGOs and experts share inside knowledge on pollution issues and disseminate scandals on microblogs. Media coverage on issues related to climate change is increasing. Air pollution serves as a good proxy in political communication.

China has issued many policy documents that are directly and indirectly related to climate protection. It has embarked on several ambitious schemes and projects, including the designation of low-carbon provinces and cities and carbon emission trading schemes. The launch of seven city- and province-level emission trading schemes offers opportunities for the further development of a system of climate protection governance in China. Such development is recognized by the international research community: “China gears up for a national carbon market” (Research community, e.g. Swartz 2013: 17).

The main challenges for China include the creation of a transparent legal framework, a competent national registry, clearly defined arrangements for monitoring, reporting, and verification as well as better involvement of stakeholders in consultation processes. While the political leadership is recognizing the relevance of command-and-control and market-based mechanisms, it has not yet tapped the potential of NGOs in promoting the transition toward a low-carbon economy in China. The crowding-in argument—government efforts can best

mobilize contributions from other stakeholders—resonates in China. A survey of Chinese and international experts of various background (Kuhn and Zhang 2014) provided evidence that the government is regarded as the key reference point for promoting climate protection and low-carbon lifestyles although the role of other stakeholders, including researchers and NGOs, is also recognized by experts.

The further success of climate protection in China will largely depend on more formal, transparent, and inclusive collaboration mechanisms and on partnerships across different sectors and sections of society.

NOTE

* Third sector is an established academic term for nongovernmental organizations and Civil Society organizations. See ISTR.org.

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Developing a Multicollaborative Governance System: A Meta-Analysis for the Inner Mongolia Grassland Region

Lihua Yang

INTRODUCTION

Grassland degradation is a global challenge for the sustainable development of social-ecological systems (SESSs) (CSC 1992; Sneath 1998). As part of the largest grassland in the world—the Eurasian Steppe—and the largest grassland region in China (Han et al. 2009; Li et al. 2012; Wu and Loucks 1992), the Inner Mongolia grassland, stretches over an area of approximately 0.88 million km² and accounts for 73 percent of the total area of the Inner Mongolia Autonomous Region (IMAR). Grassland degradation, including some severe desertification, has spread rapidly over the past several decades (Akiyama and Kawamura 2007; Tong et al. 2004; Wu and Ci 2002). As much as 90 percent or more of the region's grassland is estimated to be degraded to some degree (Enkhe 2009). Grassland degradation has resulted in a number of environmental and economic problems, including desertification, reduction in grassland productivity and biodiversity, and more importantly the frequent occurrence of large-scale dust storms (Wu and Loucks 1992; Liu and Wang 1997; Wu and Overton 2002). In this article, I use the terms “grassland degradation” and “desertification” more broadly to refer to a complex process that results from human activities and climate variations in

arid, semiarid, and dry subhumid regions, the consequence of which include soil loss, erosion, loss of fertility, and species change and that, in turn, leads to the permanent loss of grassland productivity (Yang and Wu 2010, 2012). I also define the specific meanings of some terms (such as soil loss and erosion) when necessary.

Since 1949, China has experimented with a series of management methods and policies to protect the grasslands and to combat land degradation in Inner Mongolia (Meyer 2006). In recent years, more and more researchers have become interested in these efforts and their influences on grassland protection (e.g., Han et al. 2009; Kang et al. 2007). From a governance perspective, the important roles of various social actors (individuals or organizations) such as government, business, scholars and experts, local communities, and nongovernmental organizations (NGOs) in combating grassland degradation have been highlighted (Yang 2009, 2010, 2012; Yang and Lan 2010; Yang, Lan, and Wu 2010; Yang and Wu 2010, 2012). Although the increasing use of the term “governance” is plagued by confusion (emerging from its various definitions), a growing number of researchers consider governance as an institutional arrangement or as the management of governing beyond the state (Frederickson and Smith 2003; Taylor 2007; Yang 2012). That is, the study of governance emphasizes the involvement of new and varied nongovernmental social actors in various specific affairs (Yang 2009, 2010, 2012). Because these studies have been conducted by researchers with different perspectives and have been published in journals across multiple disciplines, a review or synthesis of their main findings is useful for improving our understanding of the pros and cons of grassland governance in this region.

Thus, the purpose of this chapter is to review English-language journal articles from a variety of scientific disciplines and to identify interconnections of research from these different knowledge domains. This is also a response to the call for better understanding of the social-ecological dynamics at work in the IMAR grassland and for improving policy and management measures to achieve grassland sustainability (Han et al. 2009). In addition to the importance of the IMAR grassland, I chose this study area because it has been the subject of many international studies (based on an examination of the literature prior to beginning this work) compared to other provinces or regions in China (such as Xingjiang and the Qinghai-Tibet Plateau). In particular, many researchers (e.g., Ostrom et al. 1999; Sneath 1998) argued that both collectivization and privatization in the IMAR have been associated with worse long-term outcomes for the grasslands than has traditional group-based governance in

Mongolia. From a governance perspective, I want to further study the management problems of the IMAR grassland by considering the roles of various social actors rather than only using analyses based on a simplified dichotomy of collectivization and privatization. I ask the following questions: What grassland governance types have been implemented in the IMAR grassland? How have they affected the ecological conditions of the grassland? What lessons can we learn from these previous experiences?

DATA AND METHODS

Since it is impossible to exhaust all of the different types of the literature written in many languages (e.g., books, conference proceedings, and historical archives) on IMAR grassland governance and because of the requirements to reduce sampling and statistical bias (Babbie 2008), I used two methods to collect English-language journal articles as a representative sample of existing literature. All searches were conducted in June 2009. I first used the Science Citation Index, the Social Science Citation Index, and the Arts and Humanities Index provided by the Institute for Scientific Information (ISI; <http://www.isiwebofknowledge.com>) to search related articles. A manual check of ISI's journal coverage confirmed that the time span was from 1980 to 2009 and all relevant journals were covered. Among the 7,618 articles found through a combination of topic (TS)-based (TS = grassland) and province/state (PS)-based (PS = Inner Mongolia) searches, and the 1,438 articles found using title (TI)-based (TI = Inner Mongolia) and topic-based searches (TS = Inner Mongolia), I chose 30 articles as the initial portion of my final database (called the ISI database). To complement the ISI data, I also performed a comprehensive Google Scholar search using key words and phases such as "Inner Mongolia," "grassland," "rangeland," "grassland + China," "rangeland + China," "grassland + policy," "rangeland + policy," "grassland + management," "rangeland + management," "grassland + governance," "rangeland + governance," and so on. I chose 53 articles (called the GS database) out of the thousands of articles found. Since there were 15 articles that were included in both the ISI and GS databases, the actual number of articles in my final database was 68. Among these, only nine articles were from non-ISI journals or other sources, whereas the other 59 articles were from ISI journals.

The decision to include or exclude an article depended mainly on its relevance to IMAR grassland management and governance and was based on the information provided in the title and abstract. If

I could not decide whether or not to include an article using this method, I then scanned the entire article, especially the introduction, discussion, and conclusion sections. If an article could not be eliminated after these two checks, it was included in my analysis. I also carefully read all of the selected articles to eliminate duplicate records and publications of inadequate quality or of little relevance to IMAR grassland governance. I also included a few articles that analyzed grassland management problems in other Chinese provinces, but the findings of which could be extended to the whole country; in these cases, I did not find similar studies about Inner Mongolia. Thus, whereas my final database is not a random sample, the studies included in this analysis seem representative of a diversity of relevant publications.

The number of articles found per year between 1992 and 2009 varied greatly from year to year (figure 4.1). It was relatively stable during the 1990s but increased rapidly and reached its peak in 2006. This sharp increase coincided with an increased interest in grassland governance in Inner Mongolia and a burst of scientific publications by Chinese authors in recent decades. The decline in numbers of the found articles after 2006 may be related to natural fluctuations (e.g., such as fewer publications in 2001 and 2002 than in 2000), publication lags (caused by ISI and Google Scholar systems delays in

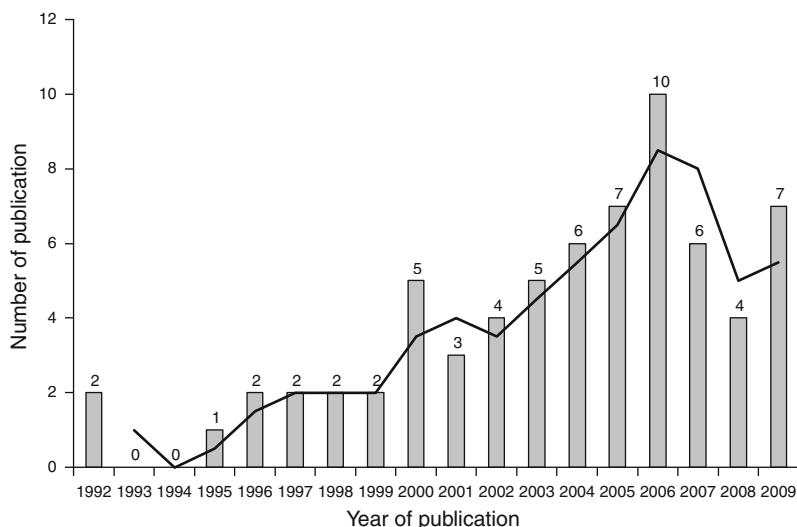


Figure 4.1 Distribution of the articles for the literature analysis

collecting published articles), the relatively small sample of my final database, and the possibility that researchers may have tended to publish more journal articles written in other languages (such as Chinese) rather than in English.

The authors, sponsors, and journals of these 68 articles were very diverse. The authors came from 12 countries (figure 4.2), among which the authors from China (41), the United States (25), and Japan (8) published the largest number of articles. This is in agreement with assumptions that there are more Chinese researchers (than researchers from other countries) interested in grassland governance problems in the IMAR, that there is a high level of academic development in the United States and Japan (leading to more overall publications), that there are more Chinese researchers or students in the United States and Japan (than there are in other countries), and that the Japanese have special concerns regarding Chinese environmental problems because of geographical and environmental factors. Twenty-nine articles (approximately 42.6 percent) were a result of collaborations by authors from different countries, among which the greatest numbers of collaborations were between researchers from China and the United States (12 articles) and from China and Japan (six articles). In both the United States and Japan, there were more researchers who collaborated with the researchers from China than there were researchers in

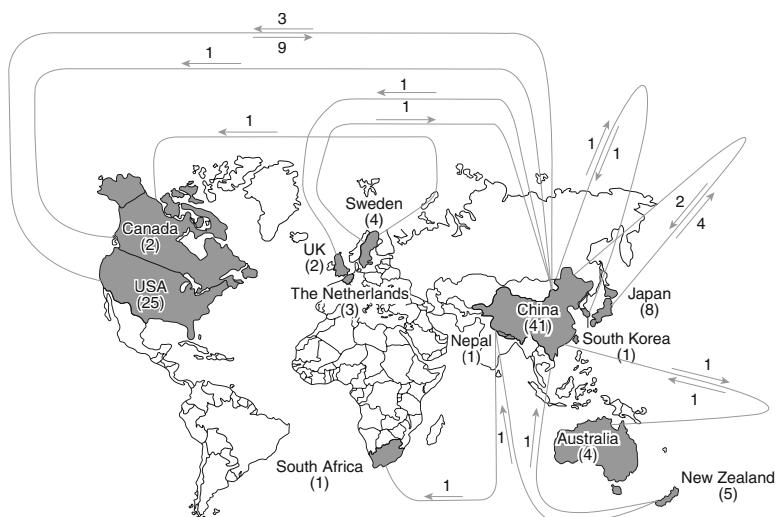


Figure 4.2 The authors' countries and their collaborations

China who collaborated with researchers from the United States and Japan (between the United States and China, this ratio is 9:3, whereas between Japan and China, it is 4:2). Also, with the exception of two articles that were jointly produced by researchers from three countries, all of the collaborative articles were produced by authors from two different countries, even if there were more than two authors. Thirty-five articles (approximately 51.5 percent) were sponsored by the following five countries—China (24 articles), the United States (five articles), Japan (three articles), Austria (two articles), and the Netherlands (one article). Furthermore, 45 organizations (including journals, conferences, and research institutes) published 45 articles singly, whereas seven journals published the rest of the 23 articles (with two or more articles per journal).

RESULTS

Governance types can be divided into eight categories that correspond to the eight groups of major SES social actors (such as individual citizens and households, including clans). The first four are individual-based privatization, household-based privatization, community self-governance (this term is defined more broadly to include terms used by various researchers, such as community self-governance, group management, comanagement, and herder cooperatives), and government control and intervention. These are directly comparable to one another because they are rule-based systems that define and control behavior. The other four categories are the participation in governance of scholars, companies, religious groups, and NGOs. These are types of actors who may cut across all four rule-based systems (Yang 2007a, 2007b, 2009; Yang and Wu 2009, 2010). These eight categories highlight the roles of different social actors in grassland management. For example, in individual-based privatization, individuals are not only land owners but are also actual production units, whereas in household-based privatization, families, or households are actual production units (even if sometimes the user rights of lands may be distributed in the names of individuals). Furthermore, in addition to emphasizing the roles of different social actors, these categories also consider actual governance types that have been implemented in practice, thus, they may be grouped into other classifications. For instance, privatization stresses ownership rights, as well as the governance roles, of individuals and households in grassland management, but analysis of the participation of firms, scholars, and religious groups only focuses on the roles of these social actors. Most of these governance

types were used in grassland governance in Inner Mongolia from 1949 to 2009, and in most cases they coexisted. Furthermore, although these governance types differed in assumptions, implementation, and socioeconomic effects, all of them were constrained by a series of common factors which were often considered the key determinants for grassland degradation. Together, these factors formed the natural and social environment of grassland governance and presented problems that the various governance types had to resolve.

Common Factors Associated with Grassland Governance

The 26 articles emphasized 29 common related factors in grassland governance and these were further divided into two groups, namely natural ($n = 11$, 37.9 percent) and human factors ($n = 18$, 62.1 percent; table 4.1). Twelve articles analyzed the 11 natural factors, among which two were climatic (n_1 and n_2) and nine were local-ecological factors ($n_3 - n_{11}$). For example, two types of threshold effects (n_9) were discussed—the degradation threshold (that is, when grasslands are degraded beyond their self-recovering capacity, for example, most of the topsoil is gone) (Christensen et al. 2003; Jiang 2006) and the governance-type threshold (this occurs at the point when one type of governance type needs to be changed to another type) (Bruce and Mearns 2002). What this particular point is, and what factors influence it, still remain unclear. Furthermore, the two climatic factors were stressed more than the nine local-ecological factors.

Twenty-three articles studied 18 human factors ($b_1 - b_{18}$), which were further divided into three groups—human population, human activities, and institutional factors (table 4.1). The most stressed human factors were “overgrazing” (b_5), “overcultivation” (b_6), and “contradictions between economic and ecological factors” (b_{13}). All of these were in the group of human activities stressed by the 23 articles studying human factors. Furthermore, among the 15 articles stressing the importance of overgrazing, three articles (Ping Liu et al. 2009; Huajie Liu et al., 2009; Pei, Fu, and Wan 2008) further studied the effects of overgrazing on soil properties, plant species, nutrients, and other related factors.

Governance Types

Government Control and Intervention

Government intervention has played an important role in grassland management in Inner Mongolia since 1949, especially during the Mao

Table 4.1 Common factors associated with grassland governance as emphasized by the literature

<i>First level factors</i>	<i>Second level factors</i>	<i>Third level factors</i>	<i>Frequency</i>
Natural factors	Climatic factors	<i>n</i> ₁ . Temperature	3
		<i>n</i> ₂ . Precipitation (or rainfall)	5
		<i>n</i> ₃ . Land availability	2
		<i>n</i> ₄ . Soil properties	1
		<i>n</i> ₅ . Water resources availability (including underground water and surface water)	1
	Local ecological factors	<i>n</i> ₆ . Habitats	1
		<i>n</i> ₇ . Biological population (particularly plant biomass)	2
		<i>n</i> ₈ . Biological diversity (particularly plant diversity)	1
		<i>n</i> ₉ . Threshold effects	3
		<i>n</i> ₁₀ . Ecological carrying capacity (particularly livestock carrying capacity)	2
	Human factors	<i>n</i> ₁₁ . Ecological resilience	1
		<i>b</i> ₁ . Human population	3
		<i>b</i> ₂ . Economic development level	1
		<i>b</i> ₃ . Economic development intensity	1
		<i>b</i> ₄ . Economic development rate	1
		<i>b</i> ₅ . Overgrazing (including livestock number and grazing intensity)	15
		<i>b</i> ₆ . Overcultivation (including farming, cropland expansion, and agricultural reclamation)	5
		<i>b</i> ₇ . Overpumping activities	1
		<i>b</i> ₈ . Deforestation	2
		<i>b</i> ₉ . Livestock diversity	1
Institutional factors	Institutional factors	<i>b</i> ₁₀ . The externality of livestock breeding	1
		<i>b</i> ₁₁ . Industry	1
		<i>b</i> ₁₂ . People's cultural and economic behaviors' patterns	1
		<i>b</i> ₁₃ . Contradictions between economic and ecological factors	5
		<i>b</i> ₁₄ . Conflict between short term and long term purposes or interests	3
		<i>b</i> ₁₅ . Method of combating degradation	1
		<i>b</i> ₁₆ . Regime systems	1
		<i>b</i> ₁₇ . Property rights	1
		<i>b</i> ₁₈ . Inappropriate governmental policies	2

Note: *n*₁-*n*₁₁ are natural factors; *b*₁-*b*₁₈ are human factors.

era (1949–1976). Ostrom et al. (1999) called this a period of collectivization. Researchers have found that regional policies (through grassland protection led by the Mongol Chinese leader Wulanfu) contributed much to grassland protection from 1949 to 1957 (Jiang 2005; Liang 1991). These polices included protecting grassland from being converted into cropland, prohibiting logging of trees and tall shrubs, discouraging non-Mongol Chinese immigration, respecting the Mongol way of life, and encouraging pastoral recovery. Grassland conservation and restoration activities organized by the government from 1958 to 1965 also increased herders' available pasture and economic income (Jiang 2005). Grassland politicization during the Cultural Revolution (1966–1976), however, caused disastrous environmental effects on grasslands (Jiang 2005; Shapiro 2001). Following closely the national “grain-first” policy, approximately 1 million hectares (0.01 million km²) of cropland was newly opened in Inner Mongolia from 1966 to 1977 (Peng and Yin, 2001). This policy, along with overgrazing encouraged by the government, accelerated grassland degradation. For example, 72 percent of the grasslands in the Ih-Ju league underwent desertification by 1972 (Ih-Ju League 1994).

Eleven of the articles analyzed 23 factors of government intervention. All of these argued that using government intervention to combat grassland degradation had negative results. All except for Ho (2003) claimed that government intervention actually aggravated grassland degradation (table 4.2a). Nine articles stressed the nine requirements (preconditions for using government intervention to combat grassland degradation; r_1-r_9) and among these, the most stressed was “policy feasibility” (r_6). This was in accordance with the two most common criticisms of government intervention—low policy feasibility and limited information (Yang and Wu, 2009). For example, Longworth, Brown, and Williamson (1997), Pan (2006), and Yan, Chen, and Han (2001) criticized migration policy in Inner Mongolia. Yan, Chen, and Han (2001) stressed the government's low investment in grassland management. The two advantages of government intervention were better infrastructure (Longworth, Brown, and Williamson 1997) and the enhancement of ethnic integration (Pan 2006); each of these was mentioned by only one article. Six articles stressed the 12 disadvantages of government intervention ($d_1 - d_{12}$), among which the most stressed was “cannot take into account the diversity of local societies, contexts, and interests” (d_6). These 12 disadvantages, as well as the nine requirements for government intervention, included most of the traditional criticisms of this model (Yang and Wu 2009).

Table 4.2 Requirements, advantages, and disadvantages of government inventions for governance, the privatization of governance, and community self-governance and functions of scholar participation in governance as emphasized by the literature

<i>First level factors</i>	<i>Second level factors</i>	<i>Third level factors</i>	<i>Frequency</i>
a.	Requirements	<i>r</i> ₁ . Institutional framework, development, and reinforcement <i>r</i> ₂ . Effective financial systems <i>r</i> ₃ . Supervision and evolution mechanisms <i>r</i> ₄ . Scientific studies <i>r</i> ₅ . Technology adoptions <i>r</i> ₆ . Policy feasibility <i>r</i> ₇ . Policy stability <i>r</i> ₈ . Public awareness and participation <i>r</i> ₉ . Extensive international cooperation	3 2 1 3 3 6 2 1 1
	Advantages	<i>a</i> ₁ . Provision of better infrastructure <i>a</i> ₂ . Enhancement of ethnic integration (the sent-down youths) <i>d</i> ₁ . Limited information and its measures <i>d</i> ₂ . Limited capacity and the failure to foresee the final results <i>d</i> ₃ . Difficulties in implementation and high management and monitoring cost <i>d</i> ₄ . Divergence of national and local policy responses <i>d</i> ₅ . Unpublicized management <i>d</i> ₆ . The failure to take into account the diversity of local societies and contexts, and interests <i>d</i> ₇ . Conflict with local practices <i>d</i> ₈ . Undermined locals' capacity in governing common pool resources (CPRs) <i>d</i> ₉ . Disempowering local governments <i>d</i> ₁₀ . Rampant violations (local communities cannot influence polices and bargain with line-ministry bodies, and then to they have to meet their own ignored needs by violating the new regulations)	1 1 1 1 1 2 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 2
b.	Privatization	<i>d</i> ₁₁ . Break with traditions <i>d</i> ₁₂ . Weakening the goal of conservation <i>r</i> ₁ . Well-defined property right <i>r</i> ₂ . Effective resource distribution <i>r</i> ₃ . Clear boundaries	1 3 3 1 2

	r_4 . Stability of land tenure relationships	1
Requirements	r_5 . Effective management	1
	r_6 . Nil enforcement costs	2
	r_7 . Competitive markets	2
	r_8 . Perfect markets	2
Advantages	r_9 . Households' limitations on their animals	1
	r_{10} . Households' change to a conservationist, scientific, and intensive regime	1
	a_1 . Contracting out user rights of grassland	1
	a_2 . Freedom to buy and sell livestock	2
	a_3 . Promoting private economic interests	1
	d_1 . Incomplete property rights	2
	d_2 . The level of uncertainty regarding the permanency of new property rights arrangements	1
	d_3 . The uneven distribution of resources	2
	d_4 . Undermined community traditions (privatization promoted by central government)	1
	d_5 . Weak enforcement of rangeland laws and policies	1
	d_6 . Weak implementation of a system of incentives and penalties	1
	d_7 . Failure of stock rate control	2
	d_8 . Higher-level cadres understand the situation at the grassroots	1
	d_9 . Weak rangeland management at the grassroots	1
	d_{10} . High project implementation cost	1
Disadvantages	d_{11} . Political and institutional change	1
	d_{12} . Local elites' manipulation (mainly the wealth's manipulation)	2
	d_{13} . High time preference rates	1
	d_{14} . Unaffordable cost and difficulties of fencing or exclusivity	5
	d_{15} . Lower equilibrium levels of rangeland-related investment	1
	d_{16} . Reduced incentives to conserve grasslands	1
	d_{17} . More intensive use of existing rangeland and rangeland-related investments	2
	d_{18} . A lack of labor during the peak breeding season	1
	d_{19} . Fencing of private grassland block the migration of wildlife	1
	d_{20} . An unbalanced ratio of male and female livestock	1
	d_{21} . A decrease in the number of large livestock	1

continued

Table 4.2 Continued

<i>First level factors</i>	<i>Second level factors</i>	<i>Third level factors</i>	<i>Frequency</i>
c.			1
Self-governance			1
		<i>r</i> ₁ . Ecological fragility	1
		<i>r</i> ₂ . Uneven access to water resources	1
		<i>r</i> ₃ . Remoteness from residential quarters	1
		<i>r</i> ₄ . Difficulties in demarcation	1
		<i>r</i> ₅ . Heavy reliance on group enforcement of production	1
		<i>r</i> ₆ . Diversity of rangeland feature	1
Human factors			1
		<i>r</i> ₇ . Clearly defined boundaries	1
		<i>r</i> ₈ . The persistence of group tenure	1
		<i>r</i> ₉ . Small size or scale	3
		<i>r</i> ₁₀ . Taking account of changes in population density	1
		<i>r</i> ₁₁ . Necessary infrastructure (meeting halls and monitoring vehicles)	1
		<i>r</i> ₁₂ . A volunteer basis	1
		<i>r</i> ₁₃ . Social norms	1
		<i>r</i> ₁₄ . Herders' awareness of benefits available to them	1
		<i>r</i> ₁₅ . The aspirations of local people	1
Requirements			1
		<i>r</i> ₁₆ . People's inherent ability to understand and take action to solve their problems	1
		<i>r</i> ₁₇ . Considering herders' knowledge, culture, and practices	2
		<i>r</i> ₁₈ . Considering roles or established regulations (should be structured)	2
		<i>r</i> ₁₉ . Formal and informal mechanisms for the resolution of disputes over grazing rights	1
		<i>r</i> ₂₀ . A flexible and participatory approach	1
		<i>r</i> ₂₁ . Identification of relevant participants	1
		<i>r</i> ₂₂ . Herders' participation in decision making	2
		<i>r</i> ₂₃ . Local and central government support	4
		<i>r</i> ₂₄ . Development of local organizations or nongovernmental with a long-term interest in grassland conservation	1
		<i>r</i> ₂₅ . Knowledge and studies of carrying capacity	1
		<i>r</i> ₂₆ . Education, training of herders and extension	1

<i>r</i> ₂₇ . Collaboration, partnership and/or various degrees of power sharing among representatives of user groups, government agencies, and research institutions	1
<i>r</i> ₂₈ . Collaboration with other social organizations	1
<i>r</i> ₂₉ . Top-down or bottom-up approach	1
<i>r</i> ₃₀ . Adopt aspects of traditional grazing patterns	1
<i>r</i> ₃₁ . Adaptive management	1
<i>a</i> ₁ . Fuzzy boundaries among inner members	1
<i>a</i> ₂ . Facilitate low-cost external exclusion	3
<i>a</i> ₃ . Equal access to pastoral resources	2
<i>a</i> ₄ . Social and economic cooperation	1
<i>a</i> ₅ . Joint investment	1
<i>a</i> ₆ . Economies of size in the herd supervision	3
<i>a</i> ₇ . The mitigation of environmental risk	2
<i>a</i> ₈ . The prompt resolution of grassland-related disputes	2
<i>a</i> ₉ . Differing benefits of exclusion	2
<i>a</i> ₁₀ . Do something individual family cannot do (e.g., balance big and small livestock)	1
<i>d</i> ₁ . Socially embedded and strong kinship-based or personalized relationships.	3
<i>f</i> ₁ . Improving knowledge on succession and biogeochemistry of the semiarid and temperate grassland ecosystems	2
<i>f</i> ₂ . Elucidating life-history strategies and diapauses' characteristics of the native grasshopper species as one of the key grassland pests	1
<i>f</i> ₃ . Developing effective management strategies for controlling rodent pests in grassland ecosystems	1
<i>f</i> ₄ . Helping use remote sensing	2
<i>f</i> ₅ . Developing new method for combating degradation	1
<i>f</i> ₆ . Helping and assisting farmers	1
<i>f</i> ₇ . Developing appropriate education and training programs	1
<i>f</i> ₈ . Increasing cooperation with other countries	1

Government-Driven Household-Based Privatization

Since decentralization in 1978, the Chinese government has implemented the Household Production Responsibility System (HPRS) as the best way to promote pastoral productivity as well as to control grassland desertification. Through this policy, many large tracts of land have been partitioned into small pieces and then distributed to single or small household clusters. HPRS was first adopted for agriculture at the end of the 1970s and was later extended to pasture areas. HPRS in agricultural areas allows for allocating farmland to individuals or families and then holding farmers themselves responsible for the profits and losses of the enterprise. In pasture areas, “both the livestock and grassland are contracted to herder households by the government instead of only farmland as in agricultural areas” (Li, Ali, and Zhang 2007: 461). Thus, HPRS in pasture areas is also called the double-contract system. Proponents have insisted that subdivision of land into parcels, and privatization may be the only way to protect common property resources; they believe that these policies promote the sustainable development of grasslands (e.g., Chen, Li, and Ding 2007). However, many researchers have recently found that the greenery in privately enclosed territories is achieved at the expense of the larger regional ecosystem (Williams, 1996) and that this reform has led to grassland degradation due to inefficient enforcement of stock rates, especially on highly vulnerable grasslands (Bijoor et al. 2006; Li, Ali, and Zhang 2007; Williams 1996). Since the 1990s, both the central government and local governments have been taking a series of countermeasures such as extending expiration of grazing contracts and implementing a policy of “Fencing Grassland, Forbidding Grazing, and Moving Users” in badly degraded areas (Li, Ali, and Zhang 2007). These new methods however, are not entirely effective due to heavy losses of income to the herders, inability to impose correct punishments on herders’ deviant behaviors, and monitoring difficulties (Bijoor et al. 2006). Faced with these problems, the government returned to a more direct intervention and centralized method, which allows them to use additional funding to strengthen the government’s centralized policy implementation and enforcement capacity. However, this new policy has also failed to stop grassland degradation (Wang 2007).

Among the eight articles, which stressed 34 factors influencing privatization and governance, only two were positive about the results (table 4.2b). Of the 10 requirements, “well defined property rights” received the most stress, but all of the researchers agreed that none of the ten requirements had been satisfied. Three advantages

were emphasized, but each was mentioned by only one or two articles. Among the 21 disadvantages (d_1-d_{21}), the most highlighted was “unaffordable cost and difficulties of fencing or exclusivity” (d_{14}). Also, these disadvantages, along with the requirements of the privatization method, included all types of criticisms regarding privatization or similar dilemmas in collective action (Yang and Wu 2009).

Community Self-Governance

Ostrom (1990) pointed out that community members can resolve the collective action dilemma themselves, if eight design principles are applied. Consistent with her view, Ho's (2000) study in northwest China found that collective management of commonly held grasslands was successful. Although according to official statistics after 1978 (Banks et al. 2003) that maintain that user rights to some 79 percent of total useable grassland in Inner Mongolia have been assigned to individual households, researchers found that these statistics should be treated with caution. For example, Banks (2000, 2001, 2003) found that group-tenure arrangements, fuzzy boundaries, and community-based management or comanagement persisted in Chinese grassland management across many regions. Bijoor et al. (2006) further stated that comanagement exists as an unofficial property rights regime, and that it mainly occurs “between friends and relatives who hire a shepherd to manage their sheep collectively” (25). Their comanagement, however, differs from Banks's comanagement in the failure to establish household tenure. They found that even after household tenure has been established, herdsmen can pool their privately owned lands to share them with others, allow their sheep to graze in common, and reap benefits due to the reduced cost of shepherding. All of these findings showed that community self-governance, along with government intervention and household-based privatization, have indeed been practiced in the IMAR grassland.

Seven articles analyzed 42 factors of community self-governance (Table 4.2c). With the exception of Bijoor et al. (2006), who argued that community self-governance or comanagement may be sometimes (but not always) successful, all of the articles had very positive ideas about the results of community self-governance. Thirty-one requirements were further divided into six natural (r_1-r_6) and 25 human factors (r_7-r_{31}), among which the most stressed were “local and central government support” (r_{23}) and “small size or scale” (r_9). In particular, Banks (1999) found state–community synergies in grassland

management. Bijoor et al. (2006) analyzed three concrete forms of government support: (1) subsidizing or providing other costs to facilitate the transition to comanagement, (2) providing diverse tracts of land with access to water, winter grazing land, or other resources, and (3) providing incentives such as reduced taxes. Bijoor et al. (2006) and Li, Ali, and Zhang. (2007) further analyzed why community self-governance should be maintained at small scales. They indicated seven reasons: (1) the ability to communicate with each other, (2) a higher likelihood of community bonding with low negotiation costs, (3) encouraging people to follow the rules of social behaviors, (4) giving people a greater voice in management, (5) knowing one another well, (6) observing one another's behaviors including cooperation, and (7) preventing incentives from being excessively diluted. Four articles stressed the 10 advantages ($\alpha_1-\alpha_{10}$), among which the two most emphasized factors were "fuzzy boundaries among inner members" (α_1) and "economies of size in the herd supervision" (α_6). One disadvantage is socially embedded and strong kinship-based or personalized relationships. This factor, however, can also be deemed another requirement of community self-governance. Thus, among 42 factors affecting community self-governance, almost no important disadvantages were studied. On the one hand, this shows the success of community self-governance; on the other hand, it may be related to the fact that when initially studying a new alternative governance type, researchers often stress its positive aspects and sometimes neglect its potential problems (Agrawal and Gibson 1999).

Scholar Participation in Governance

Here, scholars are broadly defined as those who have comparative advantages in expert knowledge over other social actors (such as herders, firms, and governments). Yang and his colleagues (Yang 2007a, 2007b, 2009, 2010; Yang and Wu 2009, 2010) found that under certain conditions scholars can help game players resolve their collective action dilemmas in SESSs through the participation of scholars as information providers, governmental agents, scholar-entrepreneurs, and pure game players. Successful scholar participation in governance requires the satisfaction of seven design principles of institutions.

Seven articles emphasized eight concrete functions of scholars. Among these, only two functions were studied by two articles and the other six functions were each stressed only by one article (table 4.2d). This indicates that scholar participation in governance has not been very well studied. Nonetheless, I did find that all of

these eight concrete functions can be included in the aforementioned roles of scholars. For example, scholars' contributions to f_1 , f_2 , and f_3 indicated their roles as information providers, whereas scholars' functions in f_4 , f_7 , and f_8 indicated their roles as scholar-entrepreneurs and governmental agents (table 4.2d).

Company Participation in Governance

Companies can participate in combating grassland degradation and can give financial, technical, institutional, and moral support (Yang 2009), both through their economic (as was done by Meili Paper Industry Co Ltd in Zhongwei County in Ningxia) and their charitable (such as donations and organizing of various NGOs in Alashan League in Inner Mongolia) activities. Firms are often taken for granted as major actors in privatization processes (Ostrom, 1990), but their influence on grassland degradation and their participation in resolving collective action dilemmas in grassland governance have only received scant attention in the literature.

Although I did not find articles that directly studied firms' effects on grassland degradation or their participation in combating grassland degradation (with the exception of Bruce and Mearn's (2002) study of industry), many common factors influencing grassland governance (such as b_1 – b_8 , b_{11} and b_{13}) are related to the behavior of companies (table 4.2a).

Religious Group and NGO Participation in Governance

Religious groups and various NGOs also participate in governance and provide an important alternative method for resolving collective action dilemmas (Hukkinen 1998; Yang 2007b, 2009; Yang and Wu 2009). For example, Yang's (2009) study found that the role of Taoist groups in combating desertification in Minqin, Gansu Province has recently become increasingly important, whereas in Alashan League, Inner Mongolia, a growing number of NGOs are participating in control of desertification.

Zhang, Sun, and Zhang (2009) studied the role of the Catholic Church in land management and in shaping arid and semiarid landscapes in western Inner Mongolia from the 1870s and to the 1940s. They found that the combination of four unique historical factors in Sanshenggong area in the West Ordos Plateau in Inner Mongolia—"the missionary zeal of the Catholic Church," "the need of the Maharajah of Alashan for funds," "the plight of destitute Han refugees," and "the hierarchical, authoritarian organization of the Catholic

Church"—enabled a system of land management and community control to create a productive irrigated agricultural area from a former grazing region. However, the general requirements, advantages, and disadvantages of religious groups' participation in grassland management were not analyzed.

Multicollaborative Governance

Collaboration is a process by which two or more individuals or organizations work together in an intersection of common goals (Merriam-Webster's Online Dictionary [cited 2011]; Yang 2007b, 2009). Twenty-five articles examined related problems of collaborative governance (table 4.3). The findings indicated three types of collaboration—collaboration among different governance types, among different social actors, and among natural and social systems (that is the harmony between nature and human beings). The first type of collaboration was the most important, and it was often the precondition of the latter two types (Yang 2007b).

Among 14 types of collaboration among different governance types (c_1-c_{14}), the two most stressed were "scholars' participation in privatization" (c_8) and "moral constraints and kin relationships in community self-governance" (c_{12}) (table 4.3). Moreover, these 14 types of collaboration were further divided into four groups: collaborative government intervention, collaborative privatization, collaborative community self-governance, and collaborative religious-group governance. For example, under government-dominated governance, community self-governance, and participation of scholars, religious groups and NGOs in governance coexisted; under privatization, government intervention, and participation of citizens and scholars in governance coexisted.

Nine articles emphasized five types of collaboration among different social actors ($c_{15}-c_{19}$); among these, the two most stressed were c_{15} and c_{19} (table 4.3). Although there may also be other types of collaboration among the eight aforementioned social actors, they were not found in my dataset.

Finally, Kim et al. (2006) emphasized the combination of three developmental targets in terms of three E's—economically improved, ecologically balanced, and environmentally sound. They argued that the combination between and among the three E's provides perspectives for sound approaches to sustainable management of grassland ecosystems.

Table 4.3 Various types of collaborations found in multicollaborative governance as emphasized by the literature

Fist level types	Second level types	Third level Types	Frequency
Cooperation among different governance methods	Collaborative government intervention	c ₁ . Citizens' participation in government intervention c ₂ . Scholars in government intervention c ₃ . Moral constraints in government intervention c ₄ . Religious group participation in Government intervention c ₅ . NGO's participation in government intervention	1 3 1 1 1
	Collaborative privatization	c ₆ . Government intervention in privatization c ₇ . Citizens' participation in government-driven privatization c ₈ . Scholars' participation in privatization	3 4 6
	Collaborative community self-governance	c ₉ . Government supports in community self-governance c ₁₀ . Citizens' participation in community self-governance c ₁₁ . Scholars' participation in community self-governance c ₁₂ . Moral constraints and kin relationship in community self-governance c ₁₃ . NGOs in community self-governance	4 3 2 5 2
	Collaborative religious governance	c ₁₄ . Government supports in religious group participation	1
Cooperation among different social actors		c ₁₅ . Collaboration, partnership and/or various degrees of power sharing among representatives of user-groups, government agencies, and research institutions c ₁₆ . National and local governments' cooperation c ₁₇ . Cooperation within and between different research and scientific institutions c ₁₈ . Cultural cooperation within one country c ₁₉ . Cooperation with other countries and international organizations	3 2 1 1 3
Cooperation among different natural and social systems		c ₂₀ . Cooperation among different natural and social systems	1

DISCUSSION AND CONCLUSIONS

The studies on grassland governance reviewed in my study were imbalanced with regard to topics and were limited in both scope and depth (tables 4.1–4.3). For example, some governance types (such as government intervention and privatization) have been studied much more frequently than some others (such as company and NGO participation in governance). In particular, because the smallest production units in modern China are families or households (and even if the user rights of lands are distributed in the name of individuals), individuals have never been real production units and decision makers. Thus, individual-based privatization has not been practiced in grassland management in Inner Mongolia. Furthermore, even as a governance model, the requirements, advantages, and disadvantages of individual-based privatization were not emphasized equally. For example, the disadvantages of government intervention and privatization were stressed much more frequently than their advantages, whereas the disadvantages of community self-governance were hardly included. This may be caused by many factors, such as the different practical results of these models, the authors' personal preferences, ideologies, and biases, and the influence of mainstream academic tendencies. However, it is worth noting that in the initial study of new alternative models (such as the community self-governance model and the government intervention and privatization models) researchers often emphasize positive aspects whereas neglecting potential problems and disadvantages.

Nevertheless, several important findings can be derived from my analysis. First, corresponding to the major SES social actors and groups, there are eight major categories of governance types: (1) individual-based privatization, (2) house-based privatization, (3) community self-governance, (4) government control and intervention, (5) scholar participation, (6) company participation, (7) religious group participation, and (8) NGO participation. Most of these types, except for individual-based privatization, were applied in grassland governance in Inner Mongolia from 1949 to 2009. The finding provides us a useful theoretical and empirical framework to analyze Chinese grassland management as well as other ecological and environmental governance problems in other regions. Furthermore, the finding of the common factors associated with grassland governance provides a concrete map for both researchers and practitioners to consider the key determinants for grassland degradation and other ecological and environmental governance problems, no matter what aforementioned types of governance they are facing.

Second, reality is often more complex than the theoretical models that describe it, so no single model or method is able to capture all the complexity of grassland governance problems. Ostrom and other scholars (e.g., Jiang 2005; Ostrom et al. 1999; Sneath 1998) have pointed out that government invention (collectivization) and privatization are the two major models that have been practiced in the IMAR grassland and this result was also supported by my study. However, many other types of governance models (such as community self-governance, and participation of scholars, companies, and religious groups in governance) have also been practiced and often coexisted in Inner Mongolia grassland management since 1949. Whereas these were constrained by a set of common factors, they each had their own requirements, advantages, and disadvantages. Both successful and failed cases have been found in the practice of these models (tables 4.1–4.3). Furthermore, together with the aforementioned common factors associated with grassland governance, its own requirements, advantages, and disadvantages factors of the eight governance types provide concrete instructions for both policy makers and practitioners to improve socioeconomic effects of governance, to transform unsuccessful (or semisuccessful) and unsustainable governance to more successful and sustainable governance, and to design new governance systems in Chinese grassland management as well as in other fields and regions. They also provide a possible theoretical framework for researchers to further study ecological, environmental, and natural resources governance types in the future.

Third, multicollaborative governance, as a response to the failure of using a single governance model or type, has been practiced in grassland management in Inner Mongolia for several decades. Although different types of collaborations are used in different situations, these collaborations can be among various governance types, among various social actors, and among natural and social systems. In addition to the real importance of scholars' participation in the privatization of governance, one factor that was frequently highlighted by researchers may also be related to the possibility that scholars over-evaluated their own roles in governance. The fact that various collaborations occur under different conditions also indicated that a contingency approach has emerged to highlight conditions under which various methods tend to be effective. Such approaches also bring various stakeholders and governance models together to engage in collective actions to resolve governance dilemmas. This approach claims that there is no one universal or best way of governance for grassland management. Instead, the optimal method of governance is contingent (dependent) upon concrete situations and environments. Thus, various models or

types of governance may be applied together to manage grasslands in a certain area according to the concrete conditions presented by its different affairs, subareas, levels of hierarchy, time frames, and so on. Not only must governance models or types fit within their subenvironments, but also the whole multicollaborative system must have a proper fit within the environment of the whole system. Furthermore, these models or types, and the subsystems within the whole multicollaborative system, must have a proper fit with each other. Furthermore, the results indicated that, in addition to the collaborations among various social actors, various governance types, and among natural and social systems, multicollaborative governance is also often applied at different hierarchical levels in a nested system. Thus, it can be deemed as a complex, compound, and networked system characterized by multiactors, multilevels, and multimethods (Bullen, Jones, and Duncan 1997; Jordan 1999; Olsen 2007; Ostrom 1987; Yang 2007b; Yang 2009).

Collaborative governance, however, has not resolved all problems. It is more practical than most simple models, but it also has problems in practice. For example, the following aspects of collaborative governance were not clear in my study: (1) what types of governance types should be selected for collaboration in a given place; (2) how should these types be structured systematically (i.e., how should they be configured in terms of order and relative importance); (3) how should these types interact; (4) how should a balance among these types be achieved among different social actors; and (5) how can various conflicts in governance be resolved. None of these problems have yet been touched upon by the studies in my dataset. Thus, these questions should be addressed in future research regarding the governance of grasslands in this region.

Nevertheless, based on the findings from this study, I could develop a simple framework for analyzing multicollaborative governance in grassland (figure 4.2). The first step is to do a factor analysis of grassland management in order to understand natural and human factors influencing grassland degradation, development and management (tables 4.1–4.3). Especially, it is essential to know which factors are controllable factors through human activities and management. The second step is to select available governance methods on the basis of the information from the first step as well as the analysis on requirements, advantages, disadvantages, and feasibilities of various governance models. According to the aforementioned analysis, at least eight kinds of methods can be selected: individual-based privatization, household-based privatization, community self-governance, government intervention, scholar-participated governance, firms' participation, religious groups' participation, and various NGOs' participation. The third step

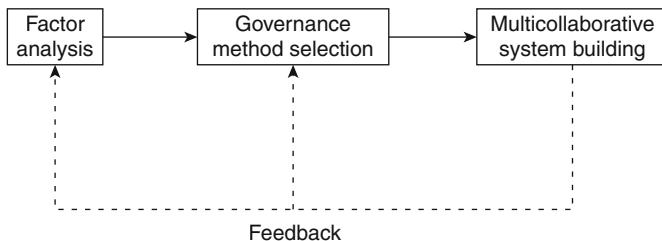


Figure 4.3 A simple framework for analyzing multicollaborative governance.

is to build a multicollaborative system after the available methods have been selected. In this step many problems such as collaborative structure arrangements, coordination among different governance methods, collaborative methods, interest distribution, and conflict resolution will be considered. Furthermore, the other two kinds of collaboration (among different social actors and among natural and social systems) should also be carefully considered in order to build a workable collaborative governance system. Also, there is feedback after the building of a multicollaborative system. The results of multicollaborative governance will affect new factor analysis and governance method selection.

The study also indicated that grassland governance in IMAR is still a poorly researched and documented topic and there is a need for more qualitative and quantitative research using recognized and well-supported research methods. Among thousands of articles on the IMAR grassland, I only found 68 articles that were relevant to IMAR grassland management and governance. Furthermore, although most of the articles are original research articles (there were only two synopsis articles and one review article), some articles did not directly study IMAR grassland management and governance problems. Thus, many arguments about IMAR grassland management and governance problems were not themselves systematically studied, but were only proposed as implications and suggestions based on the study of other problems. Academic linkages, authors' countries, authors' collaborations, sponsor organizations, journals publishing research, and the publication process may also influence the study results. Furthermore, there may be an issue of thematic selectivity or distortion as domestic researchers self-censor what to publish, particularly internationally and in English, for example critiques of grassland land policies, land grabs, or grassland ethnic conflict. The analysis of my data characteristics shows that we need more high-quality research on IMAR grassland governance supported by more diverse and neutral sponsors, conducted by more

diverse authors with more international cooperation, and published by more diverse and high-quality journals. Nevertheless, by addressing large-scale and chronic environmental and ecological problems, such as grassland management in China, the findings of the study shed new light on collaborative governance and its influencing factors as well as performance. It also provided a theoretical and practical foundation for further research on various types of collaborative governance in China and other regions around the world.

My study, however, is not without its flaws. Despite my efforts to assemble all of the relevant English-language journal articles on this topic, many valuable English-language journal articles may still have been missed. In particular, many English books, conference proceedings, and historical archives were not included in this study. Much Chinese information has also been excluded in efforts to reduce sampling and statistical bias; thus a more comprehensive review of the literature in both Chinese and English is needed to test the generalizability of the findings of this study. Furthermore, although a review or meta-analysis of the existing literature would be quite useful for improving our understanding of the pros and cons of IMAR grassland governance and almost all the studied literature is empirical and field-based, additional field-based studies should be conducted to further test these findings in the future.

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Collaboration in China's E-Government: A Cultural-Theory Analysis

Jesper Schläger

COLLABORATION IN CHINA'S E-GOVERNMENT

The Chinese government has realized its inability to deliver the level of public services required by a rapidly expanding economy and a pluralizing society. Recently, microblogs and other social media along with successful e-commerce corporations with user-friendly and fast services have put a tremendous pressure on the government, challenging the prevailing hierarchical culture. China's urbanites have become used to the convenience of online shopping, placing an order online in the morning and receiving the goods in the afternoon. Chinese central and local governments are acutely aware of the challenge of producing services that resemble this level of efficiency. They have adapted to this new environment by reengineering their work processes using digital information and communication technologies (ICT). This is all part of a larger trend, as e-government (the use of ICT in the public administration) has reshaped public agencies all over China during the last quarter of a century (Qiu and Hachigian 2005; Schläger 2013). Design and construction of new ICT systems require expert knowledge, and hence government is enticed to include a broader set of actors in policy formulation and implementation. Indeed, e-government presents a "most-likely" case (Yin 2003) of collaboration in such diverse functions as setting up interactive websites, running official microblogs, or creating back-office

systems for case processing. These are tasks undertaken on a daily basis by the Chinese administration. Nevertheless, in the context of China's autocratic rule, it is a question of whether the government wishes to create public value by sharing discretion with the private sector (Donahue et al. 2013: 2), or if they prefer to maintain a top-down approach. E-government is thus an example of an area where the Chinese government is unable to produce services entirely on its own, where public demand exists for services, but where a hierarchical culture could be a barrier to collaboration.

From the introduction of the Internet in China, the government has been torn between the economic opportunities and the political challenges of engaging this new medium. Microblogs, for instance, with a user base of more than 400 million, have been adopted by the government as a supplement to their ecology of information channels, which also includes websites, phone hotlines, and physical offices (NSG 2013; Schlæger and Jiang 2014). Official microblogs use software platforms that were originally created by private companies to facilitate social networking and to make a profit. When government organizations adopt these platforms, they suddenly find themselves in a new role, because the private partner holds the authority to verify accounts or grant access to user data. We can see this as a form of collaboration because the government fulfils its service tasks through the help of a private company that has discretion in terms of development of the platform. The service provider thus sets the limits for what government organizations can and cannot do with their microblogs (Schlæger and Jiang 2014). Nevertheless, questions arise as to how the Chinese administration can successfully engage with such private actors to create public value without being bogged down with problems such as rent-seeking.

This chapter proposes that the culture behind Chinese e-government projects reflect in the particular types of collaboration adopted. Collaborative practices will be different if decisions are made by individuals rather than by groups, and if choices are constrained by rules rather than unconstrained. Once an e-government project has been adopted, different cultural biases in the implementing organizations lead to different pathologies such as corruption, or failure of "think-big projects" (Hood 1998). Another basic proposition is that the pathologies along with the selection of a form of collaboration both relate to the cultural values in government. Consequently, to understand the development of collaboration, it is expedient to take a step back and analyze its background in cultural-theory terms. The research question addressed is split in two parts: (1) How has culture

changed as reflected in Chinese e-government projects? and (2) What is the connection between culture and the pathologies observed in implementation of e-government projects?

The chapter continues by reviewing the literature on collaboration in Chinese e-government and the link between culture and collaboration. Then, to answer the first question of cultural background, the longitudinal development of culture in e-government policy has been mapped based on 98 cases. To answer the second question relating culture to pathologies, four cases were selected from this larger sample and subjected to further analysis. The findings are subsequently discussed across the cases. Finally, a brief conclusion summarizes the core argument and its implications. Further information about the methodology can be found in the Appendix to this chapter.

Collaboration and Culture in E-Government

Research in the area of collaboration in e-government in China is in its infancy. Whereas previous research on collaboration has scrutinized different areas such as care for the disabled, gardening and landscaping, energy production, transport infrastructure, and others (see e.g., Mu, de Jong, and Koppenjan 2011), there are only few studies of collaboration in e-government and even these are mainly discussing outsourcing (e.g., Wang, Jian, and Ma 2009; Chen 2012). Whereas research has analyzed areas that include collaboration, such as official microblogging and smart government projects, the existing studies have not conceptualized the observed phenomena as collaboration, but instead focused on other management perspectives (e.g., Zheng 2013). Concerning newer models such as build-operate-transfer, or build-own-operate, there are, so far, few articles, which move beyond the theoretical discussion; and in practice, the models are not widespread in e-government. Previous research thus confirms the impression that collaboration is a new phenomenon in China's e-government.

In the English-language literature on e-government, collaboration has been conceived as "a mutual sharing of resources, risks, and benefits associated with project operations" (Dawes and Eglene 2008: 4). It springs from earlier literature on interorganizational relations (e.g., Hall et al. 1977, cited in Dawes and Eglene 2008: 2). These works are distinct from the general discussion of collaboration as a part of the debate on marketization of service provision in the public sector (e.g., Jing and Savas 2009). The interorganizational relations strand is inspired more by questions of how information technology can foster

collaboration (an egalitarian value orientation) than about how the market can work as a tool for more efficient government (an individualist orientation). For instance, the literature includes discussions of how social media can take collaborative governance further including civil society under the heading of government 2.0 (see, e.g., Welch and Feeney 2013; Criado, Sandoval-Almazan, and Ramon Gil-Garcia 2013).

Furthermore, an important distinction between output and process in collaboration is emphasized by Victor Bekkers (2009). Whereas a project may fail to attain its policy goal, it can still be a success in terms of generating learning among the parties involved, which can be a valuable resource for further collaborative projects. Importantly, even failed projects can serve to build trust between partners, and trust is the key to understanding why collaboration works; if there is no trust, there will be no collaboration (Dawes 2003).

Adding to this, from research on other countries, it is clear that collaboration is deeply embedded in the cultural context, and the trust and willingness to embrace a range of actors in public service provision in the Chinese e-government. Sharon Dawes and Ophelia Eglene, in their discussion of interorganizational collaboration, remark the “pervasive influence of cultural factors on all other dimensions” (2008: 8). Their notion of culture refers to Hofstede’s five cultural dimensions that they apply as a component of a sophisticated model of collaboration; however, in their study they found their own model to be insensitive to the actual, deep impact of culture on all levels of analysis:

Because the model deals with culture only at the macro level . . . , it does not account for its effects on the other dimensions. Unlike the model, the case data demonstrate that culture is evident in every aspect of the projects, embedded in the way people think, perceive, and act. (Dawes and Eglene 2008: 9)

Culture is hence important in order to understand collaboration in e-government projects. However, in previous literature, there is no clear answer to why or how an identifiable culture affects collaborative projects. Consequently, it is necessary to further examine and clarify the relation between collaboration and culture.

Culture is understood by reducing it to two dimensions: group and grid. Group refers to “the extent to which individual choice is constrained by group choice, by binding the individual into a collective body” (Hood 1998: 8). Grid is “the degree to which our lives

are circumscribed by conventions or rules, reducing the area of life that is open to individual negotiation" (Hood 1998: 8). Accordingly, culture refers to the level of boundedness of rules in a broad sense and the extent to which decisions are made in a group as opposed to individually.

If we analyze e-government projects on an organizational level, previous literature points out that different epistemic values of organizations or groups within them can conflict with the values imbued in a new e-government project (Wagner and Newell 2004). Antonio Cordella and Federico Iannacci use the term "mismatch" to denote the observed tendency of e-government projects to fail, if they do not fit with the existing core values in the organization (2010).

Michael Thompson, Richard Ellis, and Aaron Wildawsky (1990) claimed that in a given administrative context several cultures coexist in perpetual competition. In other words, there is an irreconcilable conflict between the different cultures. As Mary Douglas interpreted their text, "they related the general well-being of a community to the extent to which all of its interacting cultures are recognized" and thus normatively, "a dominant culture should not drive the other underground or reduce any of them to silence" (2006: 10). Joanne Martin calls this perspective a "differentiation approach" (Martin 2002 in Jackson 2011: 60) as it underscores the difference between epistemic values of diverse "fields of practice" (Wagner and Newell 2004).

Christopher Hood elaborated on that idea with what he calls pathologies. A pathology, or disaster in public administration, occurs when a particular culture is left to rule alone, for instance he links the failure of "think-big projects" to an excessive reliance on a hierarchical culture of organizing. This finding resounds in the work by Dawes and Eglene, who conclude that culture along with political, social, and economic environment influences motivations of participants and may determine the limits of project performance (2008, 5).

Hood has also distinguished how government can respond in a fatalist, hierarchic, individualist, or egalitarian way to public management disasters (1998: 24–27). Based on his cultural-theory framework, it can also be assumed different pathologies are particularly likely under different forms of governance. For instance, hierarchy leads to failure of think-big projects, fatalism leads to apathy or inertia, egalitarianism breeds unresolved feuds between groups, and individualism increases fragmentation and corruption (Hood 1998: 27–28). Based on previous research, two propositions evolve that will guide the analysis.

First, collaboration can take different forms, which each matches within a particular cultural orientation. In the literature on

collaboration a distinction between imposed, induced, and organically created collaboration is used. In the cultural-theory framework, imposed networks are a result of rules imposed without any personal choice, in other words, high on both group and grid, and hence hierarchical values. Individualist values are, in contrast, the carrying element of the induced collaboration schemes. Organically created collaboration, network based in their cleanest form, belong to an egalitarian value universe. There is a fourth option, the fatalist way, which will, however, in its cleanest form lead to no collaboration, because of mistrust among individuals and hence no desire to work with others (see, e.g., Dawes 2003). These are ideal types, and hence will not be found in their clean form, but more likely in different combinations.

Secondly, this chapter proposes that collaborative projects unfold as either success or failure, because culture (measured as group-grid values) affects the viability of ideas through creating or dampening their resonance in the institutional environment. The cultural aspect will therefore be brought to the foreground in the analysis to engage the organizational culture as a way of understanding collaboration.

Culture Change in Chinese E-Government

This section analyzes culture change in the Chinese e-government since 1988 through a fuzzy-set coding of data from previous studies (on methodology see Appendix to this chapter). The observations place us firmly within the hierarchical mode during the entire period, as can be seen from the prominent size of the dark area in figure 5.1. Already in 1988, the State Council held a conference to promote standardization of mainframe computers to avoid waste and increase efficiency. Additionally, they completed several networked computer systems to process and archive official documents (Chen 2005). The central state was acting to integrate and standardize information systems in a hierarchical way. After 1989, the general political climate in China became tense, there were only few e-government policies from the early 1990s and they were similarly hierarchically oriented toward standardization and revolving around internal government processes (Chen 2008). Toward the middle 1990s, market orientation became more visible, for instance with the inauguration of the Golden Enterprise project in 1995 to support efficient governance of state and private businesses. Another one of these projects, the Golden Card, is described in more detail in the case study section later. In short, the whole series of Golden projects, addressing

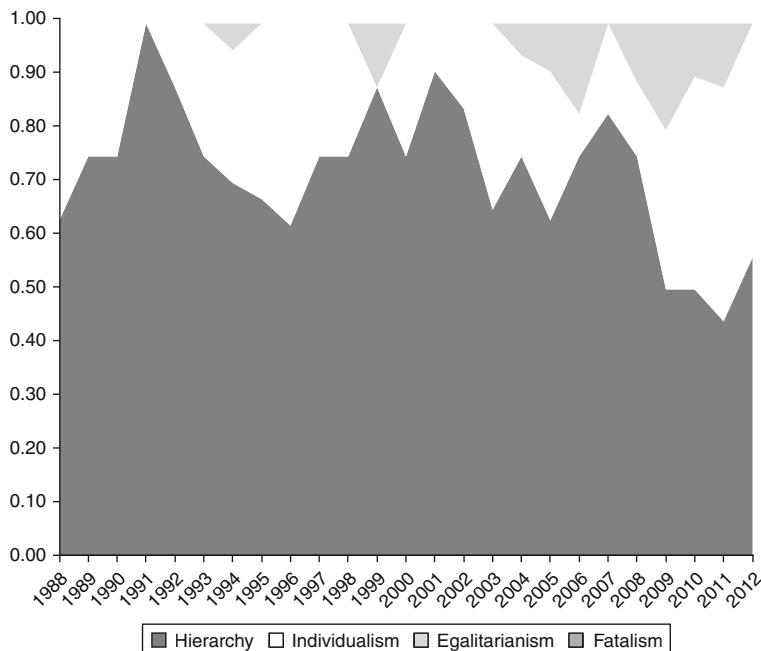


Figure 5.1 Cultures in China's e-government 1988–2012

information infrastructure buildup, were closely dependent on outsourcing to technical service providers and inklings of collaboration can be traced back to these projects (Lovelock and Ure 2002; E-gov 2005; Qiu and Hachigian 2005). A clear importance of individualist values as part of the value universe is visible as part of the early phases of e-government (represented by the white area in figure 5.1).

This cultural change toward inclusion of market forces was momentarily reversed in 1998, when central government took control to coordinate the process of getting the Chinese government on the Internet with the Government Online Project. This project, analyzed in the second case study later, required all government units to create websites to increase government presence in the virtual world. After the campaign was over, its hierarchical culture declined during the subsequent years. Rules set out to regulate local governments in detail and emphasizing the unity of government gave way for more market-based solutions again.

The individualist path, which fits well with the general move in public administration toward new public management (Zhu 2008),

was not the only cultural change, as traces of egalitarian solutions can also be seen (in figure 5.1 the light-gray area). For instance, when universities were involved in the e-public affairs project to reform urban management tasks in the Maizidian Street Committee in Beijing (presented later as case number three) the general idea was to involve a broad range of social actors in urban management. Such projects were, nonetheless, few and dispersed over time.

In 2007, the cyclical nature of China's political system revolving around large political gatherings became visible, as the 17th National People's Congress convened, and projects that year were biased in a conservative and hierarchical direction. For instance, the Golden Safety project aimed at increasing the state's monitoring capacity of production companies. The project included outsourcing of technical tasks to three large private Internet companies, but no delegation of discretion. The same year, the Government Information Openness Act was passed (State Council of China 2007). The regulation imbued egalitarian values insofar increased openness about government work focused on protecting citizen rights. However, it was just as much an administrative tool to reduce corruption, and the act did not foster collaboration, as no redistribution of discretion was implied.

In 2008, President Hu Jintao made an online appearance to "chat with netizens" (*People's Daily*, 2008). In a way this could be interpreted as another instance of egalitarian values, but the hierarchical control was still very obvious as the interaction was carefully orchestrated and netizen questions had been cherry-picked in advance.

In the last years of the analyzed period until 2012, social media became of key interest to government as a further development of e-government. As mentioned in the Introduction, the adoption of official microblogs is a kind of collaboration, where the market determines what is possible, as the private service providers develop their platform. This means that the market creates new limits for what the government can do. This is the strongest influence of individualist values seen so far in Chinese e-government construction. Thus, the punctuations, in the form of returns to stronger hierarchical values, do not change the general trend of more individualistic values on the hierarchical background.

In the following, four cases are analyzed ranging from the Golden Card Project (in the time before Internet) over Government Online (enter the Internet), through a paradigm of e-public affairs with participation, to official microblogging. These cases illustrate the existence of different sets of values and connected approaches to collaboration.

Case One: Golden Card

In 1993, the Golden Card Project was initiated among the first of a series of Golden Projects (*jinzi gongcheng*) related to development of basic communications infrastructure (Qiu and Hachigian 2005). Hierarchical values characterized the Golden Card project. The very top of the Chinese government, the president—Jiang Zemin at that point—and Premier Li Peng personally paid attention to the Golden Card Project (Chen 2013). The intention was to strengthen e-commerce and to combat corruption by making money flows more transparent through transition into a credit-card system instead of using cash for money transactions. To this end, a national infrastructure had to be constructed. It commenced in selected trial locations, and later the program expanded on a nationwide basis. Hence, to a high extent, this was a top-down reform, but the implementation relied on banks to issue integrated circuit cards (IC cards) and install or update automatic teller machines (Zhang 2001). The Golden Card was an e-government initiative because the banks involved were at that point state-owned enterprises.

Consequently, the implementation depended on collaboration between government and the banks. The banks were not autonomous, but had to follow standards laid out by the Golden Card Leadership Group, a cross-ministerial task force specifically targeting this project—an often-used governance mechanism in the Chinese context (Zhang 2001). Central government ministries imposed collaboration through preset standards. Even so, banks were interested in the general idea of credit cards.

Such a think-big project as the Golden Card project would, according to the cultural theory, be in danger of a collapse. However, the Golden Card avoided major disasters (Wu 2005). Characteristic of the project is the high degree of other actors in the implementation process, which reflects not hierarchy, but individualism in the form of involvement of market actors—the banks. This would lead to an expectation of corruption, and this to some extent happened, as banks leveraged high fees for use of the IC cards, something, which the central government in 1997 and 2000 regulated. Some localities lacked regulations, investments in new systems were uncoordinated leading to duplication, and the banks put too many cards in circulation (Zhang 2001). Local government organizations had their own agenda and demanded registration fees for access to the systems and illegal user fees, examples of rent-seeking. The existing hierarchical governance mechanisms were insufficient to regulate these kinds of illegal activities (Zhang 2001).

The think-big project did not fail as a dramatic collapse. The Golden Card was implemented successfully, if seen on a large scale. Behind the success was a coincidence, namely that the interests of the local governments and the goal of the central policy to establish a credit-card network were aligned.

Nonetheless, the Golden Card project faced problems with rent-seeking. The project suffered a pathology related to the individualist values entering the policy mix. The institutional framework consisted of rules designed to constrain state bureaucracies, but banks implemented the Golden Card under the auspices of local governments, and room for corruption (or rent-seeking) arose. This was against the central government's intention. However, exactly the rents that local governments were able to extract from the project may be what made them supportive in the first place. Had there been no benefits, the local governments could just as well have been lazy implementers leading to the failure of the entire project.

In sum, the Golden Card project exhibited a movement from hierarchic values embedded in the central-level policy to individualist values controlling the local implementation process. The case illustrates that Chinese e-government from an early stage had room for market solutions and for devolution of discretion to the lower levels of the government. Even so, this was not an example of collaboration in a clean form, as the banks were not given much discretion during implementation. The pathologies that characterized the project were related to the adoption of insufficiently regulated market measures, and the project to reduce corruption paradoxically generated corruption of its own. It was thus the hybrid values that troubled the Golden Card project as individualist values during implementation trumped the institutional setup geared for hierarchical solutions.

Case Two: Government Online Project

The Government Online Project in 1998 inaugurated the era of e-government in China. The main goal of this project was to get all government organizations online with their own website to create a virtual face of government (Qiu and Hachigian 2005). The central government officially declared the year 1999 the “e-government year.” This was a signal to all levels of government to pay attention to the implementation of the Government Online Project.

At the strategic level, the project culture was a hybrid of hierarchy and individualism, not unlike the Golden Card Project, as it was a top-down initiative from the central government and supported by a broad range of ministries. The implementation of the project involved

units at all levels of government. However, not only government actors played a role, but also the communications giant China Telecom was an important piece of the strategic development (Lovelock and Ure 2002). Furthermore, a range of private Internet companies assisted local governments in designing, programming, and maintaining websites through outsourcing agreements.

In the local level government organizations, the outsourcing took place based on the idea that buying a website is like going to the supermarket, a market transaction. The process was to purchase a standard website, registering a domain, uploading some news and information, and then no further action was taken. Designing a website, however, implies a number of choices that are crucial for future development such as choosing programming language, hardware platform, which data to present online, and which user data to archive. Because of the relatively high specialization of the technical issues, local governments generally relied on the service providers to make the right choice. Local government thus in practice delegated discretion in system design to private companies that made choices based on their own preferences, locking local governments into each their favorite legacy system.

The pathologies observed relate to fragmentation of the implementation apparatus. In spite of the efforts to standardize websites and computer systems, the result of the Government Online Project was the creation of isolated information islands (*xinxi dudao*), referring to incompatible information systems that did not integrate into a larger information ecology. Multiple dynamics led to this outcome, but here it is sufficient to conclude that it was not a failure of one big project as much as it was the failure of a complex constellation of government and private actors set free to find their own solutions. Fragmentation was the result, as would be predicted by cultural theory when an individualistic culture plays a large role.

At the local level, fatalism might be a better description of the prevalent culture. Local governments adopted e-government in name more than in substance. They opened websites that served mainly to fulfil performance criteria of their superiors. In the back-office, things were business as usual, as organizational standard operating procedures constrained the use of the new information systems. The outcome of this fatalistic approach was inertia in the implementation of e-government, which can be seen from the low level of functionality on the websites even several years later (Qiang 2007: 95–96).

Furthermore, there is evidence of symbolic implementation or hypocrisy during the Government Online Project. When analyses

apply the triad of hierarchy, market, and network, the fourth option (inertia or inaction) does not show clearly. However, as illustrated above, it is an important part of Chinese e-government. It would be misleading to characterize it as hierarchy, because even though the top levels define it in such a way, the interpretation of what has to be implemented is not shared by the lower levels.

Cultural theories understand culture in different ways and on different levels, but here is one example of where a view of the national level political culture as a single concept would fail to explain what is going on during implementation. In China, the many levels of government complicate processes of governance (see, e.g., Lieberthal 1995), and this case illustrates how the hierarchical culture at the central level meets enthusiastic fatalism at the local level.

Case Three: E-Public Affairs

In 2006, the new concept “e-public affairs” (*dianziz gongwu*) surfaced in academic literature on e-government (Li et al. 2006). As opposed to the previous two cases, e-public affairs did not become mainstream government policy. Even though the idea of collaboration based on egalitarian values was presented to the Chinese government, it was only adopted on a very limited scale, and after some time the experiments were discontinued. The case of e-public affairs thus presents a lens to examine the limits of collaboration in China.

Culturally, the e-public affairs model was a reaction to the strong top-down government focus in the e-government literature, and it suggested that government could and should not produce all public goods by itself (Li et al. 2006). Instead, businesses and citizens or nongovernmental organizations should be allowed to play their part. This idea, with its foundation in multicentric governance, comes close to egalitarian values. The theory was translated into administrative practice in Maizidian Street Committee in Beijing, where a new system of urban management was set up (Dongying Municipal Government 2008).

The idea was to create a new kind of e-government based on collaboration in networks. There was an implied no questioning of government authority, and the purpose was to deliver services and public goods—not political participation. There was thus a top-down bias to this kind of collaboration as well; the model was hence comfortably within a hierarchical culture. However, there are also very clear marks of an egalitarian culture. The e-public affairs model encouraged non-governmental organizations to invent new public services including how provide them, and this could be supported by business enterprises.

Not only is the idea of e-public affairs interesting because of its challenge to existing values in the public administration, it also illustrates a Chinese speciality, namely scholars who come up with a new governance model and then selected government agencies adopt it on a trial basis. Sometimes it succeeds, as for instance digital urban management (Song and Cornford 2006), and sometimes the projects are not convincing to the political decision makers. Digital urban management was specifically based on hierarchic values keeping all the work within the government, as opposed to the egalitarian notion of e-public affairs—to let citizens and businesses participate in the work. This kind of academic-government collaboration should have particular attention as a way of inducing collaboration through another pathway than market.

In this case, the cultural theory would expect that internal feuds either in the academic world or among the agencies in Beijing, who were going to pilot the projects, to be the cause of disaster. The e-public affairs model was tentatively used in a few trial cases in Beijing. They were more top-down oriented than the theoretical model had asked for, and apparently, they did not work very well or at least, not to the liking of the authorities. They were not rolled out on a larger scale. The year 2008 was the high tide of e-public affairs but later years saw only very few publications and no further examples of adoption in practice. This is an interesting story about cultural mismatch, and maybe it shows something about the limits to collaboration in China. Further work is needed, however, to make definitive conclusions.

If seen from the general trend in the value development (figure 5.1), the e-public affairs projects was launched at a time when hierarchical values were on the rise. Subsequently, there was an opening for individualist values, but no room for egalitarian values. The general environment for market-based collaboration grew stronger whereas collaboration initiated by nonprofit organizations—the university in this case—faced constraints. They did not fit. The e-public affairs program was a failure if we look at the output, as none of the projects in Beijing survived beyond the limits of government financing. Nevertheless, seen as a learning process the project had its merits. The actors involved have built up experiences of collaboration for later, as illustrated by the writings of the university professors involved (Li et al. 2006).

Case Four: Official Microblogging

Microblogs, or *weibo* in Chinese, are a popular type of online social media. As such they are online platforms where people can share

self-created content such as text, pictures, video, or audio clips, to a network of other registered users on the platform. Their small format makes it suitable for the 500 million Chinese citizens who access the Internet through mobile devices (CNNIC 2014). The popularity, the ease of use, and the effectiveness as a communication platform during disasters are all elements that have enticed first local governments and then the central government to venture into developing and maintaining official government microblogs. Motives also included a wish to “occupy *weibo*” and let the official voice be heard in a communicative space that tended to harbor subversive voices (Schlæger and Jiang 2014).

The value-set behind official microblog adoption is complex. Police departments have been avid adopters of microblogs as have the information offices. The new medium here mainly serves as a platform for government to let their voice be heard, and provide a counterpoint to the public discussions that sometimes portray government negatively. It has so far mainly become a tool to gauge and affect public opinion. Other government organizations, such as government affairs service centres, perceive microblogs as a new channel for service provision and communication with clients (Noesselt 2013). Service provision is shaped by individualist market-centred values, and the Chinese government in this sense benchmarks itself against private e-commerce companies.

As the government uses the freely available commercial platforms, it makes sense to talk about collaboration. The private providers actively develop new platforms independent of the government. Government subsequently uses the microblog platform by adapting their type of service provision to the format given by the medium. With more than 175,000 official microblogs registered across the four major platforms Sina, Tencent, Xinhua, and *People's Daily*, the government is a big user of these free online services (NSG 2013). The government uses the platforms to create public value by, for instance, posting news or service information or answer questions relation to case processing online. From the perspective of collaboration, it is highly relevant to note how the role of government in this case has changed from a top-down policymaker who regulates implementers (for instance the banks in the Golden Card case), and into becoming the user of a commercial service. To be authorized in the microblog environment, government even has to apply for authentication by the service provider, for instance, to get a graphical representation of a “V” for verified account (Schlæger and Jiang 2014). The individualism in this case seems to have come so far as to challenge the hierarchical values as the most important.

Collaboration on the social media thus commences in a bottom-up fashion rather than initiated by government. Maintaining green areas or providing service for disabled people are tasks carried out by non-commercial entities (either government or family members), which to some extent can be produced under collaborative governance, when the individualization of Chinese society combined with an extended scope of government services demands so. There are already existing practices with several decades of history structuring their institutional background. In contrast, social media is new to the society and the government, in particular. Hence, no institutional paths exist for microblogs.

Official microblogging has clear individualist traits, and hence corruption would be the pathology immediately expected by cultural theory. Corruption in this case can, for instance, occur if the private service providers exploit the user data amassed on their network as part of the interactions between the government and the citizens. This could be, for example, which friends do they have, which news do they read, which services do they use and how (time, frequency), which games do they play, and personal information such as age, gender, and birthday. Strictly speaking, the government agrees to a set of rules stipulated by the private service provider in order to use the service, and this means that the user data is the property of the service provider. Government employees lament the lack of access to detailed usage statistics. They are instead presented with some relatively crude summaries, which are not sufficient for improving their services (Schlæger and Jiang 2014).

Fatalist values, the desire to stick to the standard operating procedures, show in the local government approach to microblogging, which, on the one hand, is guided by a feeling that it is a new medium of large importance and something the public administration has to adapt to in some way. On the other hand, there is no common strategy for development; it is thus adopted on the local level by individual level initiative and creation of institutions that are in perpetual trial mode, what can be called “beta-institutions” (Schlæger and Jiang 2014). In this way, it reflects elements of the Government Online Project, something local governments are obliged to do, but prefer to do without changing work processes.

Apart from its promises, collaboration in the information age also poses new hazards. As access to networks is a new form of power (Castells, 2000, Hansen and Hoff 2006), the reconfiguration of power relations between private service providers and the state is important to notice. Data, usage statistics, and verification (*renzheng*)

of microblog accounts are all under private jurisdiction. The individualist pathology of corruption or rent-seeking is thus likely to occur—using government–citizen interaction to make profit through control of the user data. Usually, citizen interactions with the government will leave a document trail in the bureaucracy (subject to administrative law) but this trail is now just so much in the possession of private corporations. For government, lack of this data means that they are unable to target their service, because their information base is too shallow. The private company is thus required to develop new services and improve the existing ones. Discretion is thus with the private actors by default and not by deliberate design by government. Here lies a potential conflict with the creation of public value because the service providers are in business for a profit, whereas this chapter for the sake of argument will “assume fidelity of the government to citizen’s interests” (Donahue et al. 2013: 13).

DISCUSSION

The analysis of the culture changes within e-government shows an increasing plurality of values reflected within the programs. The move toward more individualism whether in the form of new public management or joined-up governance (which is still top-down in the Chinese context) is not surprising; and whereas it has not been conceptualized as “individualist culture,” this development tendency has been identified in previous research as well (e.g., Zhu 2008). Three points stand out from the synthesis of the findings in the three cases.

First, it is impossible to identify any completely ideal-typical cultural form as all the projects show different degrees of hybridity. In Chinese e-government, the main cultural value is related to hierarchy. Nevertheless, as illustrated by the four case studies, other cultural elements can be traced and the problems or pathologies that arise in these cases seem to confirm the expectations based on the cultural-theory framework.

Second, in collaborative projects, there is potential conflict between “fields of practice” (Jackson 2011). With diverse actors, the risk of mismatch between their different project cultures and the prevailing culture becomes exacerbated. A differentiation (or fragmentation) approach is thus important to understand how likely a collaboration project is to succeed (Jackson 2011). In the cases demonstrated by, for instance, differences between the values of central government, local governments, and the banks during implementation of the Golden

Card. Another example is the difference between microblog service providers (driven by individualist values) from the hierarchic values of governments using the online platforms for public service provision.

Third, even from the initial informatization projects, such as the Golden Card, outsourcing has been instrumental to implementation. In the beginning, the e-government initiatives were very much top-down controlled; more recently however, in certain forms, the actual impulse for government action comes from market pressures and pressures from e-commerce. In spite of the obvious importance of collaboration within the field of e-government, it is not well researched in the Chinese context. Here is an opportunity for the Chinese government to learn from foreign literature and expertise. Chinese scholars could increase focus on the area, in particular in terms of studies of existing programs to learn from experience and develop new theory. E-government has been described as an “architecture of control” (Kluver 2005) and accordingly the expectation would be that government maintains a firm grip on the development, including eventual collaborative models. The cultural theory, however, would nuance this so that government is expected to choose a mode of control in line with the existing cultural bias at the given time (Hood 1998: 234), which could be, for instance, oversight (hierarchy) or competition (individualism). In fact, the cultural forms found in e-government during the last couple of years show a tendency to match a culture of collaboration based in individualist values, as illustrated with government use of social media. The road to collaboration in Chinese e-government seems to go through individualism rather than egalitarianism: in other words, through the market rather than civil society organizations.

CONCLUSION

How has culture changed as reflected in Chinese e-government projects? A culture change from hierarchical toward inclusion of individualist values is taking place in the Chinese public sector moving the boundary between public and private. The entrance of public agencies in the online social media can be meaningfully characterized as induced collaboration (bottom-up), which comes about because government service provision is under pressure from practices in the private sector. This finding is significant as it shows how (even in an authoritarian country such as China) the nurturing of the individualized culture over the last decades has provided resonance for state adaptation to new technologies. This increasingly important role of

individualist values in Chinese e-government provides a new basis for collaboration albeit in the shadow of hierarchy.

With this background, the contingency of choosing particular forms of collaboration as a response to public administrative issues should be highlighted. Different forms of collaboration can be put to work to solve the problems encountered in public administration, and behind each kind of collaboration is a set of values shaping both its form and the pathologies related to it. In other words, this chapter has argued that collaborative projects unfold either as a success or failure, because the organizational culture affects the viability of ideas through creating or dampening their resonance in the institutional environment. A question was posed: What is the connection between culture and the pathologies observed in implementation of e-government projects? The cases analyzed in this chapter—even the Golden Card Project, which was a top-down program—exhibit collaboration during implementation. However, it was also evident that the predicted problems of embracing an individualist culture and choosing to involve private actors in the implementation played out as expected with rent-seeking behavior. On the one hand, as Christopher Hood has pointed out, a culture should always allow space for competing ways of life, to avoid the pathologies innate to any of the ideal types. This may be exactly what is seen in the case of e-government in China, where individualist values are given space in the hierarchical values universe to contribute to the creation of a responsive, service-oriented, and service-predicting public administration. Alternatively, the infusion of new values create challenges, whether through writing contracts when outsourcing or formulating rules and codes of conduct for microblog service providers.

The culture constrained and enabled collaboration, and an implication of this is that there must be resonance between the existing culture and the project culture in order for a project to survive. Currently, there seems to be resonance in the long-lasting values to experiment with market-based collaboration. Inclusion of a broader range of social organizations is not likely to find resonance, but experiences are slowly building up in this area as well, as seen, for instance, through the involvement of universities in collaborative projects.

What does e-government say about collaboration in China in a broader sense? The cultural background identified in e-government resembles the general cultural context in China, and the findings can thus potentially be generalized. However, the conclusion of this chapter should be considered illustrative rather than definitive. To attain the latter quality, more empirical work is needed. The reliability

of the findings in this chapter also has limits, because the analysis was based on second-hand data from published articles and Internet sources. Considering the small number of articles on the topic, the conclusions would benefit from further empirical inquiry. Whereas the findings reflect the explorative character of this study, it is, nonetheless, the hope that the understanding of collaboration in a cultural context can increase the chances that new e-government projects are formulated in a way fitting reasonably with the existing value context and prepared for the foreseeable disasters.

APPENDIX: METHODOLOGY

The first part of the study is a longitudinal study of value changes. The case is government use of information technology in the period 1988–2012. The time delimitation enables analysis of culture before the word “e-government” (*dianzi zhengwu*) became used in government; through the launch of the Government Online Project in 1998 and the Year of E-Government in 1999 and including the rapid uptake of social media in the government information ecology in 2011–2012. With a scope that extends before e-government, any changes leading to adoption of the concept become visible. Furthermore, culture changes slowly (Jørgensen 2007) and therefore an extended timeframe is needed to be able to distinguish directional trends from cyclical variations.

The long-run perspective of value change since 1988 is examined through fuzzy-set coding of 98 government projects. China's central government either directly implemented or endorsed all the selected projects, which ensures that the sample incorporates officially sanctioned cultural values. From this macro perspective, it is possible to assess the changes to Chinese administrative culture on a larger scale, and the implications in terms of patterns of collaboration. As the cases are mainly within a hierarchical culture, fuzzy-set analysis is applied, because it allows a graduated distinction within categories instead of a binary coding. Such method is inspired by Patrick Dunleavy and collaborators' analysis of digital era governance (2006). The cases are coded on a scale of 1 in increments of 0.25. The coding 1 means completely in the set (for instance, egalitarian); 0.75 means more in than out; 0.5 is neither in nor out; 0.25 more out than in; and finally 0 means fully out of the set (for instance, not egalitarian at all) (Dunleavy et al. 2006: 67). Based on the premise that the cultural orientations in their ideal typical form are mutually exclusive, we can maintain that the set score is kept within 1, so

that for instance a score of 1 in hierarchy means that the observed case resembles the ideal type of hierarchy without any confounding elements of individualism, fatalism, or egalitarianism. The figures are aggregated on a year-to-year basis to produce a yearly score. The types of collaboration are also coded. There are four categories. First, imposed collaboration means there is outsourcing of technical tasks and discretion, yet tightly controlled by the state. Second, induced collaboration includes delegation of core tasks and discretion. Third, self-generated collaboration means participation of a range of stakeholders, among these civil society or nongovernmental organizations. Finally, there is the possibility of no collaboration. To test the validity of the proposition that different pathologies are particularly likely in different administrative cultures, a further coding of the pathologies is necessary. The codes applied are, “failure of think-big projects,” “lack of cooperation or individual corruption,” “inertia or passivity,” and “unresolved feuds” (Hood 1998). Further variables include the project name, the year of inauguration, the problem identified by decision makers, the response in terms of concrete measures, and finally the sources for data collection.

The second part of the study contains contextualized analyses of four cases illustrating the existence of different cultures within e-government. These cases are selected from the larger sample based on their heuristic value to support the claim that it makes sense to talk about different cultures, even within a hierarchical setting as the Chinese public administration; and to illustrate the connection between culture and the form of collaboration.

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Collaborative Disaster Management: Lessons from Taiwan's Local Governments

*Ming-feng Kuo, Chun-yuan Wang, Yan-yi Chang, and
Tzung-Shiun Li*

INTRODUCTION

In recent decades, challenges stemming from both human-made and natural disasters have become increasingly serious with the coming of a risk society. Traditionally, one function of the government, particularly local governments, has been to deal with disaster to secure citizens, making it inevitable for the government to operate based on bureaucratic norms and hierarchical command systems. It is important and critical for governments, facing the new and transformational challenges of disasters, to adopt alternatives to improve their capacity to cope with disasters in the new age.

At the same time, the emergence of extreme climates and rapid changes in the environment has resulted in many serious and unexpected damages. These accidents immediately challenged the capacities of governing authorities around the world. According to the statistics from the emergency disaster database established by the United Nations,¹ more than 4,491 natural disasters occurred from 2000 to 2009, reflecting a 51 percent increase compared to the previous decade (i.e., from 1990 to 1999). These disasters seriously damaged local infrastructures and resulted in heavy casualties in the affected countries.

Taiwan is often regarded as one of the most geographically crucial places on earth when discussing disaster management (Wang

and Kuo 2014; Yang 2001, 2009, 2010). The importance of sharing Taiwan's lessons stems not only because of its plentiful experience, but also because of the varied topography and complex tropical island climate, which have resulted in high risk of frequent earthquakes, typhoons, floods, and other natural disasters (The Earth Institute 2005).² In the past two decades, Taiwan has suffered many serious disasters and damages. For example, the 921 Chichi earthquake in Nantou County in 1999 resulted in 2,444 missing or dead people and collapsed more than 100,000 buildings. On August 8, 2009, Typhoon Morakot made a landfall in southern Taiwan. According to conservative estimates, this natural disaster caused unprecedented heavy losses in Taiwan, with almost 700 people being declared missing or dead, 1,764 houses being damaged or collapsing, and the total amount of losses totaling nearly \$200 billion. The most well-known tragedy of this disaster was the eradication of the rural village Xiaolin, located in Jiasian township, and the death of nearly 500 people, when a landslide suddenly occurred (Central Emergency Operation Center 2009). In summary, these unprecedented large-scale natural disasters have destroyed Taiwan's infrastructure developments and caused a serious loss of human lives. These catastrophes have challenged the capacities of Taiwan's government to carry out disaster management.

To improve disaster management effectively, this chapter explores the adoption of an alternative approach of governance to address the critical elements involved in coping with disasters among different actors. The public administration literature usually defines "governance" in terms of policy networks, collaboration governance, collaborative public management, cross-border governance, and regional cooperation, among other terms. We deliberately define three crucial aspects—namely, trust, information sharing, and accountability—for effective framework collaborative disaster management. Through in-depth interviews with representatives of local governments, including Taipei City, Nantou County, and Kaohsiung City, we analyzed the collaborative relationships among local governments, civil society, and entrepreneurs. These findings related to Taiwan's local governance expand our understanding of key elements of disaster collaborative management.

This chapter is divided into five sections. The section "From Disaster Management to Collaborative Disaster Governance" briefly describes the concepts and theories of collaborative governance on disaster management as well as the analytical framework. The section "Methodology" presents the arrangement of Taiwan's disaster management system and introduces the research procedure for the in-depth interviews conducted in this study. The findings and discussions of Taiwan's disaster

management are presented in the section “Findings and Discussions”. Based on the authors’ findings, theoretical implications and policy recommendations for establishing the governance mechanism of collaborative disaster governance are presented in the final section.

FROM DISASTER MANAGEMENT TO COLLABORATIVE DISASTER GOVERNANCE

The Emergence of Collaborative Governance

Since the 1980s, efforts to reinvent the government have surged in the face of an economic downturn and increased government budget deficits. In light of this trend, the bureaucratic norms and hierarchical command systems derived from the traditional approach to public administration have been criticized, resulting in many public administrative reforms, such as downsized governments, improved service quality, and reduced budgets (Osborne and Gaebler 1992). The general consensus in academia and practice is that the government should no longer monopolize how to provide public goods and services (Tseng 2011: 5). The public sector—through third parties such as corporations, nonprofit organizations, and other semipublic and semiprivate units that provide public services—has instead become an important option for governance (Chen and Chang 2008: 19). Such strategies are generally considered to be feasible methods for reducing government spending while improving the efficiency and effectiveness of services. These strategies are also deemed as the most appropriate approach for replacing the traditional bureaucratic structure and the most attractive alternative for providing public services from quasimarkets (Liu 2011: 113).

This evolution of the administrative thinking and its corresponding reforms reveal an essential change in public governance and the policymaking process. The coproduced and trust-oriented collaborative governance model has become extremely popular. The collaborative governance framework emphasizes the civic awareness of shared values; in this framework, diverse powers seek to maintain the rule of legitimacy and public interests (Kettl, 1993: 202). Many scholars have further highlighted the many characteristics of this governance approach. For example, given the high degree of social and political complexity, dynamics, and diversity, Kooiman (1993: 22) insisted that, in the implementation of policy, a single actor or sector does not have adequate knowledge to handle the increasingly complex problems. Therefore, determining how to achieve good governance

requires public–private partnerships comprising various networks, shared responsibility, and the mutual delegation of authority and ability. Consistent with this argument, Li (2006: 5) agreed with the need for more collaboration among multiple organizations to ensure cooperation. Li (2004: 42) stressed public–private partnership and coproduction, focusing more on the goal based on mutual recognition among the different actors. Chen (2008) summarized these concepts to point out that public–private partnership must be seen as part of the government’s role as it can facilitate the increase of governance capacity, thereby easing the complexity of public policy issues.

Based on the literature, what should not be denied is that today’s collaborative governance is still a loose concept that lacks a precise definition. It is often generally defined as two or more of the stakeholders or actors engaging in consensus-oriented decision making to form the basis of a mutual trust interactive network with each other to share resources and responsibility (Ansell and Gash 2008; Bardach 1998; Chen 2008; Kamensky and Burlin 2004). Ansell and Gash (2008: 544) stressed the importance of the participation of nonstate actors, particularly their direct participation in decision making rather than merely being consulted by public agencies.

To summarize the discussion thus far, the concept of collaborative governance refers to the traditional state-centered governance thinking that emphasized bureaucratic norms and hierarchical command systems; this concept has been transformed into a modern governance model by stressing rule by a public–private collaborative framework. Due to the administrative revolution, the traditional bureaucratic system has gradually been replaced by participatory governance or collaborative governance (Kooiman 1993; March and Olsen 1995; Osborne and Gaebler 1992; Peters 2001). The current concept of collaborative governance also reveals the impact of globalization and rapid changes in information technology, as citizens in a diverse society tend to be more enthusiastically engaged in public affairs and policy decision making. Therefore, the governing authorities should attempt to use various methods to improve their capabilities to satisfy the increased civic awareness and consider citizens’ participation to enhance stakeholders’ involvement in the cogovernance process.

Coping with Disasters: The Collaborative Governance Approach

Collaborative governance has been discussed in several areas, such as the applications of social networks and the evaluation of the effectiveness of the public–private relationship (Wang, 2012), the meaning

of collaborative governance (Bingham and O'Leary 2008; Gazley 2008), and cross-border governance (e.g., Abramson and Balutis 2008; Shafritz, Russell, and Borick 2007; Starling 2008), as evidenced by many studies of dialogue based on the public–private partnership (Agranoff and McGuire 2001; Chen and Chang 2008).

Faced with the significant challenge of natural disasters, the Taiwanese government has to engage all kinds of relief work. However, because of the changes in weather patterns, multiple disasters, and large-scale disasters, the threat of disasters has been more serious than before. It also means that the role and function of the government should be adjusted. Although organizations such as businesses and nongovernmental organizations offer many resources whenever disasters occur, inappropriate attribution leads to a waste of already scarce resources. As a result, the cooperation, the collaboration among human resources from everywhere, and efficiency have become important issues concerning postdisaster rebuilding efforts. Considering all of these factors, the public administration community is seeking to deal with increasingly complex problems through proper collaboration while discussing the governance mode and relative theories (Comfort, Waugh, and Cigler 2012; Stivers 2008; Waugh and Streib 2006).

Unlike the usual governance, collaborative disaster governance occurs under conditions of urgency and uncertainty in policymaking. Faced with these challenges, Chowdhury (2011: 405) concluded that:

The creation of an improved system is required for promoting dialogue and cooperation among scientific communities and practitioners working on disaster risk reduction and encouraging partnerships among stakeholders...The partnership approach needs to concentrate on working with community to understand local vulnerabilities and capacities and to recommended directions for its development.

Medury (2011: 429) also pointed out that “good disaster-risk reduction strategies consider public–private partnership as integral. The combination of the stakeholders’ commitment and a structure or arrangement enables or provides an opportunity to each partner to contribute its unique strengths.”

Nowadays, the concept of collaboration also plays a critical role in addressing Taiwan’s disaster prevention and response issues. As Schneider (2011) criticized, previous governance models have placed too much emphasis on the hierarchical bureaucratic norms via a hierarchical command control system to achieve the policy objectives. He

instead suggested that disaster prevention and relief should highlight the elaborations of emergent norms and the need to pay attention to a variety of ways to deal with disaster management via collaboration governance (Schneider 2011: Chapter 4). These insights are consistent with the viewpoints put forth in studies on Taiwan. In Taiwan, most of the literature has focused on case studies of public–private partnership, intergovernmental relationships, community participation, social capital, or regulatory framework to explore disaster prevention, disaster relief, the postdisaster period, and levels of government. For example, Yang (2009) described the case of the Typhoon Morakot disaster relief among the central and local governments, intralocal governments, nonprofit organizations, and civil society in terms of cooperation efforts in disaster prevention and response mechanisms to strengthen the disaster response system. Li (2008) further applied the Neihu Science Park case and tried to import networks and public–private sectors to community safety governance. Tang (2001) analyzed the 921 earthquake in Taiwan from both vertical and horizontal intergovernmental perspectives. In these examples, collaboration among disaster prevention and relief organizations provided extensive evidence on the importance of collaborative governance in emergency management. We can clearly find evidence that collaborative governance has indeed played a considerable role.

An Analytical Framework of Collaborative Disaster Governance

Today's governing authorities around the world have considered the strategy of collaborative networks to be an effective way to enhance capacity related to disaster management affairs. In recent years, the concept of collaborative governance has received increasing attention in the field of disaster management (Getha-Taylor 2007; Kapucu, Arslan, and Demiroz 2010; Kapucu and Garayev 2011; Tierney 2012). Compared to the general literature examining disaster management, this chapter defines three key elements in collaborative governance. Collaborative disaster management should emphasize the vertical and horizontal organizational communication, coordination, and cooperative disaster response to extreme events (Choi 2008; Comfort 2002; Kapucu, Arslan, and Demiroz 2010; Kettl 2006; Waugh 2011; Waugh and Streib 2006). We define the critical elements of collaborative governance to include trust, information sharing, and accountability (Chen 2008; Kapucu and Garayev 2011; Koliba, Mills, and Zia 2011; Pardo, Gil-Garcia, and Luna-Reyes

2010). Details of these elements are described in the following subsections.

Trust

According to Huxham et al. (2000: 351), “what the collaboration is aiming to achieve is seen as an essential precursor to taking joint action and mutual trust necessary to promote a positive attitude between partners and to allow autonomy of action by individual partners within the spirit of the collaboration.” However, the lack of trust among stakeholders is a common starting point for collaborative governance (Weech-Maldonado and Merrill 2000). Ansell and Gash (2008: 558) found that “trust building often becomes the most prominent aspect of the early collaborative process and can be quite difficult to cultivate.”

Trust can be explained as an aspect of a relationship that reflects “the willingness to accept vulnerability based on positive expectations about another’s intentions or behaviors” (McEvily, Perrone, and Zaheer 2003: 92). Abundant conceptualizations and typologies of trust are evident in the literature. In a collaborative setting, trust implies a choice to accept vulnerability, which for example “refers to the risk of opportunistic behavior by a collaboration partner, the risk that sensitive information provided to the partners will not be handled confidentially, or the risk that a partner will prove unable to deliver on his or her promises” (van Oortmerssen, van Woerkum, and Aarts 2014: 668). In collaborative governance, trust is not necessarily related to goal consensus. It is important to note that trust is based on reputation and past interaction experiences (Provan and Kenis 2008). Trust generates mutual understanding, legitimacy, and commitment and enables actors to go beyond their own personal, institutional, and jurisdictional frames and perspectives to understand others’ interests, needs, values, and constraints (Emerson, Nabatchi and Balogh 2012).

Information Sharing

Information has played a critical role in the formation and operation of government programs and services, particularly in network forms of government, which also require public administrators to begin understanding more fully the nature of that role (Pardo, Gil-Garcia, and Luna-Reyes 2010). However, from the rational choice perspective, information asymmetry usually influences actors’ decision making or actions (Dixit and Skeath 1999). Recent studies have demonstrated

a correlation between trust and information sharing. For example, some scholars argue that trust boosts information sharing because the actor is not afraid of abuse and will reveal information relevant to the decision-making process (Butler 1999;). Other scholars have considered that, through information sharing, actors can gain a better understanding of one another's perspectives and build trust (Das and Teng 1998; Ruppel and Harrington 2000).

The interactions of collaborative governance are often dyad based, including referrals, the sharing of information, and joint programs (Provan and Kenis 2008: 231). Information sharing offers a real opportunity for network actors to share databases and achieve consensus in decisions based on more complete information (Dawes 1996). Dawes (1996) classified the benefits of and barriers to information sharing in three categories—technical, organizational, and political.

Information sharing across network actors has become more feasible through the development of technology, but various factors still influence information sharing. Yang and Maxwell (2011) identified three perspectives affecting information sharing—technological (e.g., heterogeneous hardware, software and information system, IT capability), organizational (e.g., lack of experience or resources, incentives and rewards, leadership), and political and policy (e.g., legislation and policies, information as power, and authority) perspectives.

Accountability

Collaborations often consist of various identified actors involved in working relationships with each other in the pursuance of a common purpose. Typically, the structures of collaborative governance display very complex features in many respects. The issues of accountability also arise from the inherent structural complexity (Huxham et al. 2000). For the public sector, Romzek and Dubnick (1987) categorized four accountability frames through external and internal controls and high and low degrees of control. However, unlike bureaucratic accountability, collaborative accountability binds actors as peers or partners (Mashaw 2006). Within a collaborative governance framework, power is interpreted in terms of the changing nature of relationships among different actors and the accountability rendered to partners (Bardach and Lesser 1996). Koliba, Mills, and Zia (2011) identified explicit standards of collaborative accountability, including written agreements, decision-making procedures, and negotiation regimes. Meanwhile, implicit norms of collaborative accountability include trust, reciprocity, and the durability of relationships.

METHODOLOGY

The official disaster management system in Taiwan is designed within a three-level administrative hierarchy—the central level, metropolitan city/county level, and township level. In Article 6–16 of the Disaster Prevention and Protection Act, the Taiwanese government clearly defines the division and responsibility of each corresponding disaster prevention and relief organizations. This law further authorizes the Central Disaster Prevention and Protection Response Council of the Executive Yuan to manage disaster prevention policies and resource allocations, including approved, supervision, and appraisal rights.³ Furthermore, the tasks and responsibilities of disaster management between central and local governments are identified by the Local Government Act. The act makes the central government responsible for designing the overall basic principles for responding to disasters, with the local governments being first in line to carry out the disaster prevention rescue management of civil society organizations, community-based organizations, and citizens.

The other characteristic of Taiwan’s disaster management system is the adoption of the single-hazard approach. Article 3 of the Disaster Prevention and Protection Act identifies 16 disasters and the agencies responsible for each specific disaster. For example, at the central level, the Ministry of the Interior is responsible for windstorms, earthquakes, and fires, while the Ministry of Economic Affairs is responsible for flooding, droughts, public gas, fuel pipelines, and power transmission line failures.

A more collaborative disaster governance approach is inevitable for Taiwan when facing the criticism for the practical operation and continuous challenges from multiple and large-scale disasters. In the case of Kaohsiung’s gas explosion on July 31, 2014, for instance, 32 people were killed and more than 300 others injured. The leaking of gas was reported at 8:46 p.m., but the city’s fire department could not identify what kind of gas was leaking at that time. Experts from the Environmental Protection Agency (EPA, in charge of toxic chemical materials) and Economic Development Bureau (in charge of public gas, fuel pipelines) and the central government subsequently joined the investigation. Unfortunately, the gas exploded, along with six kilometers of roads, generating significant damages at 11:57 p.m. This case has presented the critical role and function of collaboration in disaster governance.

In order to understand the operations in practice, some concepts of collaborative governance need to be clarified. Specifically,

two different types of collaborative governance should be distinguished. The first one emphasizes the vertical collaborative relationship between central and local governments whereas the other one is the horizontal collaborative relationship between governments and nonprofit organizations. As for the vertical collaborative framework, the characteristics of a hierarchical command system and the political-administrative relationship should be considered. Especially in Taiwan, the different appointees of elected officials and civil servants inside the bureaucracy and the different partisanship of the chiefs across various levels of governments can result in different incentives to achieve their goals. Such conflicting goals can impede the operational efficiency of disaster management. In addition, with regard to analyzing the relationship in the horizontal collaborative framework, Young (1999, 2000), Coston (1998), and Najam (2000) identified four useful relationship types among nonprofit organizations and governments: collaboration, complementary and contractual, adversarial, and supplementary partnerships.⁴ These four types could further facilitate the understanding of the horizontal collaborative disaster management framework in Taiwan.

In order to understand collaborative disaster governance among different levels of governments, civil society, and entrepreneurs in Taiwan, this study adopts in-depth interviews to improve the internal validity of research results (Creswell 2003: 179). The main characteristic of this method emphasizes face-to-face contact among researchers and interviewees through unstructured questions to collect the qualitative data. By using this method, insights into respondents' observations, experiences, opinions, and perceptions can be achieved. This method also facilitates the clarification of key issues and relationships and provides a detailed description of the current situation in Taiwan (Weiss 1994: 9–11; Rubin and Rubin 2005: 47–48).

Three categories of interviewees were selected for this study using purposive sampling: central government (coded as C), local government (codes as L), and nonprofit organization (coded as N) representatives. Thirteen persons were interviewed in nine interviews during 2013 and 2014. The list of interviewees is presented in table 6.1. These interviewees demonstrated different characteristics representing the central and local government, private sector, and nongovernmental organizations immediately involved in disaster management affairs. In this way, this study provides not only a static inductive analysis of the theoretical literature, but also information on dynamic process in Taiwan's collaborative disaster governance.

Table 6.1 List of interviewees

<i>Organization (Level)</i>	<i>Interviewees</i>	<i>Date</i>	<i>Code</i>
OOO Post-Disaster Reconstruction Council (Central)	OOO chief secretary	April 22, 2013	C-1
National Fire Agency, Ministry of the Interior (Central)	OOO deputy director-general	April 30, 2014	C-2
Water Resources Agency, Ministry of Economic Affairs (Central)	OOO deputy division chief and OOO senior specialist	August 14, 2014	C-3
OOO Disaster Prevention Association (NPO)	OOO chairperson	April 21, 2013	N-1
OOO Branch, Red Cross Society of Taiwan (NPO)	OOO executive secretary	July 16, 2013	N-2
OOO Phoenix Rescue Association (NPO)	OOO chairperson	July 16, 2013	N-3
Water Resources Bureau, Taichung City Government (Local)	OOO and OOO division chiefs	August 14, 2014	L-1
Water Resources Department, OOO County Government (Local)	OOO director-general, OOO, and OOO division chiefs	August 19, 2014	L-2
Dept. of Water Resources of Economic Affair, Hualien County Government (Local)	OOO division chief	September 11, 2014	L-3

Source: The authors.

FINDINGS AND DISCUSSIONS

Collaborative disaster governance is viewed as the dynamic planning and management process emphasizing the reduction of risks of uncertainty and the possibilities of potential dangerous accidents through various actors and stakeholders. Our analysis is based on two dimensions—the three major stages of disaster management and the

three core elements of collaboration. The former refers to prevention (including mitigation and preparedness), response, and recovery, whereas each stage can be sequential and tightly linked. The elements of successful collaboration involve trust, information sharing, and accountability.

Stage 1: A Golden Time for Trust and Platform Building of Information Sharing about Disaster Reduction

“It is better to have prevention than a cure” fits many situations, including disaster governance. In this stage, to improve the overall effectiveness of disaster prevention and relief, Taiwan’s government has focused on performing tasks such as enlarging the scope for relevant stakeholders’ participation in decision making, improving accessibility to information sharing, and enhancing the relationship between the government and civil society. To build up a well-functioning collaborative system, the central government has implemented different projects to carry out disaster reduction. For example, the disaster-resistant community plan was proposed and implemented by the Water Resource Agency, Ministry of Economic Affairs, and the disaster prevention and rescue via deep plowing plan was executed by the National Fire Agency and the Ministry of Interior. Such governmental plans focus on building a disaster governance network within the community.

Interviewees identified two implications of a golden time for trust building and information sharing in the stage of disaster prevention. First, as trust building is the most prominent aspect of the early collaborative process, but is difficult to cultivate (Ansell and Gash 2008: 558), the disaster prevention stage obviously requires good timing for stakeholders to understand each other and share a common goal of disaster reduction. Effective communications and platforms for information sharing or mobilization for stakeholders in the disaster governance network are quite important.⁵ Different levels of governments in Taiwan have set up websites for disaster prevention information in recent years,⁶ and governments have adopted new technologies (e.g., GIS, apps, social media) to share this disaster information.⁷ In addition, it is easier to clarify responsibilities for each individual actor involved in disaster governance at this stage, thereby facilitating collaboration.⁸⁹

Challenges to collaboration still exist at this stage. One of the major challenges is conflict of interest. Conflicts of political interest among different parties¹⁰ or between individual interests and common interests¹¹ can obstruct collaboration.

Stage 2: Information Sharing Is Critical in Collaborative Disaster Response Governance

Collaborative management is especially important during disaster response. Wang and Kuo (2014) pointed out that a participatory strategic process will enhance disaster response capacity. With regard to this aspect, different levels of governments, including the central or local entities, cooperate with the private sector, and nongovernmental organizations or nonprofit organizations play critical roles as well. In this stage, disasters' characteristics include urgency and a need to respond immediately; therefore, it is imperative to know how to coordinate the various sectors to achieve goals consistently and avoid the problem of information asymmetry. With regard to effective collaborative in the horizontal cooperation with the private sector, Taiwan's government has adopted some strategy responses to disasters, and the collaborative relationship is more attributable to what Salamon (1999) classified as the contract type, which means that the government and private sector build on contractual relationships. This means that some public services or goods are supplied by the private sector, which can be mobilized more easily when disasters occur.¹²

In order to overcome the coordination problem across various levels of governments, the Disaster Prevention and Relief Act regulates that the central government can appoint a coordinator in local governments' incident command system (ICS). Here, information sharing is more critical for effective collaborative disaster governance. To ensure consistency in the disaster information shared between central and local governments, the Central Emergence Operation Center established real-time monitoring and communicating systems so that different levels of government can share information important for decision making. The related systems are also useful for detecting whether a gap exists between the local and central information or not; if the information is inconsistent, the government can respond and solve the problem as soon as possible. The interviewees stated that information sharing is not only a matter of sharing information from the command control in a top-down manner or the needs requested from the bottom-up. Each participant should share responsibilities, realize the difficulties stemming from inaccuracies, and take real and collaborative actions to cope with disasters.¹³

One challenge in information sharing comes from the private sector, particularly nonprofit organizations involved in rescues and disaster responses.¹⁴ Nonprofit organizations do not network and organize themselves in response disasters; most follow the government's lead.¹⁵

Interviewees also pointed out that nonprofit organizations might lack tangible resources, but they obtain experience and knowledge in disaster responses. They can collaborate with the government; however, it depends on the capability of commanders. In previous large-scale disasters in Taiwan, some ICS commanders did not effectively integrate the intangible resources.¹⁶

It is worth noting that, in this stage, the interviewees specifically mentioned that Taiwan's citizens have recently made considerable progress in becoming fully aware of disaster prevention and rescue. Especially when confronted with the significant loss of life and property due to disasters during these years, citizens' disaster risk awareness has increased dramatically, making them more able to follow the government's rescue efforts, especially during disaster evacuation. Such contributions could also be attributed to the educational efforts by the government and nongovernmental organizations.

Stage 3: Trust and Accountability Facilitate Collaborative Disaster Recovery Governance

The final stage of disaster management is disaster recovery and post-crisis accountability. This is a significant issue not only in terms of helping residents quickly restore basic economic living conditions, but also in serving as an important reference for disaster prevention in the future. In this stage, the trust and coordination mechanism once again become crucial factors affecting the collaborative governance framework. First, in this stage, every sector—including volunteer and social sectors—is involved in this process, because the range of damage is huge and crosses various fields. Bryson, Crosby, and Stone (2006: 45) viewed this phenomenon as an expanded framework for cross-sector collaborations. Furthermore, collaborations often consist of various identified actors involved in working relationships with each other in the pursuance of a common purpose. As every sector is involved in the recovery and reconstruction process, the most important thing is to form a consensus to establish leadership credibility, legitimacy, trust, conflict management, and planning work (Simo and Bies 2007).

Based on Taiwan's experience, some challenges still exist. For example, in terms of Typhoon Morakot, one interviewee mentioned that despite the establishment of a vertical collaborative governance framework, the problems of coordination and accountability failures continued to occur across all levels of government. According to the interviewee, this problem resulted from the local democratic election

system in Taiwan.¹⁷ In addition, disaster recovery efforts are affected by leadership, experience, communication, and coordination,¹⁸ which also affects the accountability of collaborative disaster recovery governance. It is worth noting that, under the influence of the dark side of democracy in Taiwan, some problems continue to exist, making the accountability mechanism ambiguous.

CONCLUSION

During the past two decades, unforeseen large-scale natural disasters have caused serious losses of properties and human lives. These natural disasters have seriously challenged the governance capacities, making the need to identify alternatives to improve the government's limited capacity in this new age a crucial issue in both academia and practical applications. By examining theoretical literature, this chapter has proposed a collaborative disaster management framework and defined three crucial factors affecting its capacity: trust, information sharing, and accountability. By conducting several in-depth interviews, this chapter has provided much experience in terms of the relationship between Taiwan's central and local governments, citizens, and businesses in collaborative crisis management mechanisms and operations.

The findings of this chapter are summarized as follows. First, when confronted with the risk society, in Taiwan's context, different levels of government and private or nongovernmental organizations emphasize building a collaborative governance framework. They are more engaged in establishing an institutional system and laws. In other words, the central government to a large extent is empowering its administrative responsibilities over public functions from the national authorities to the local authorities or the private or nongovernmental organization sector. The task of the central government is mainly to coordinate resource allocations. Second, the in-depth interviews demonstrated that trust, information sharing, and accountability are all crucial elements in practicing collaborative disaster management, as expected. It is worth recognizing that, in recent years, citizens' awareness of risk and disaster issues have been significantly enhanced. When confronted with natural disasters, residents are more willing to obey the government's rescue actions, particularly in terms of disaster evacuation. Such contributions could attribute to the efforts of government and nongovernmental organizations on education and communication. A large degree of trust exists between the government or nongovernmental sector and citizens.

Some limitations or problems still need to be overcome. Based on Taiwan's experience, we provide some topics for establishing a good governance mechanism for collaborative disaster governance. First, despite the institutional framework of collaborative governance being built by governments and private or nongovernmental organizations, some problems still need to be addressed. For example, the analysis of our interview data indicated that the different partisanship of government leaders (i.e., a vertically divided government) might negatively influence the trust relationship and accountability in vertical collaborative governance. Determining who should take responsibility in coping with disasters is particularly troubling in the decentralization of disaster management. Therefore, solving this dilemma will be the next research agenda in collaborative disaster governance.

Since the 1980s, both governments and the private sector have faced serious financial pressures, and the lack of resources (e.g., organizational members or financial budgets) might have negative impacts on disaster management and response capability. To overcome this limitation, we agree that relevant authorities should adopt strategic management thinking and reform their organizational culture and institutional setting. According to Wang and Kuo's (2014) empirical study, this strategy would facilitate organizational members' efforts to manage actions supporting disaster response and recovery operations consistently and effectively. Thus, effective network management skills are necessary for a participatory approach to disaster governance.

Finally, regarding the realization of the concept of disaster prevention and governance, the most important and fundamental tasks still focus on educating citizens about their self-risk perceptions. Although the government and nonprofit organizations have established an integrated framework for disaster prevention and response, citizens still stand on the frontlines and suffer the most damage. Thus, every citizen should be made aware of the importance of self-help, cohelp, and public help. Citizens should continue to engage in relevant education and training to enhance public awareness of the risks and promote natural conservation, which could also deepen their understanding of the concept of sustainable development.

NOTES

1. Accessed via the EM-DAT database of the United Nations (<http://www.emdat.be/database>).
2. Taiwan is located in the Philippine Sea plate and Eurasian plate collision belt.

3. The decision criteria of the Executive Central Disaster Prevention and Protection Commission on disaster prevention policies are as follows: (1) Article 6 of the Disaster Prevention and Protection Act regulates that the Executive Yuan needs to set up the Central Disaster Prevention and Protection Response Council to promote disaster prevention and response capability; (2) paragraph 1 of Article 7 of the Disaster Prevention and Protection Act regulates that one convener and deputy convener are responsible for the Central Disaster Prevention and Response Council, with the Executive Yuan's premier and the vice premier serving as the convener or deputy convener, respectively; (3) paragraph 2 of Article 7 of the Disaster Prevention and Protection Act states that, for the implementation of disaster prevention and protection policies approved by the Central Disaster Prevention and Response Council, the Executive Yuan needs to set up the Central Disaster Prevention and Relief Committee to implement rescue tasks and measures, with the Executive Yuan's vice premier serving as this committee's chairman; and (4) Article 8 of the Disaster Prevention and Protection Act states that the municipal or county (city) government has to establish a municipal or county (city) disaster prevention and response council; following this framework, Article 10 of the Disaster Prevention and Protection Act specifies that the township (town, city) government also needs to establish a township (town, city) disaster prevention and response council.
4. Characteristics of these four types are as follows: (1) Collaboration partnership emphasizes a reciprocal relationship to create a common purpose or vision via communication among different departments. Different sectors have consistent action and strategies to achieve their visions (Chrislip and Larson, 1994). (2) Complementarity and contractual relationships can be differentiated into two modes. In the first, nonprofit organizations provide public services or goods that cannot be provided or satisfied by the government (Gidron, Kramer, and Salamon, 1992); in the second, the government and nonprofit organizations build on contractual relationships, with the latter supplying public services or goods that are funded by the former (Salamon, 1987, 1999; Young, 1999). (3) An adversarial relationship exists when the government and nonprofit organizations have different opinions about adopting means to achieve their policy ends (Najam, 2000). In this type, both actors attempt to use any way they want to influence others' behaviors to achieve goals (Young, 1999). (4) In the complementary relationship, because the government's failure might result in its inability to provide public goods or services with adequate quality, nonprofit organizations are assumed to play the role of filling or complementing the government's failure gap (i.e., "gap-filling"). Thus, the nonprofit organizations supplement product goods and services, even providing the same services as the government (Weisbrod, 1977).

5. “Because it is always chaos in disaster response, it is necessary to build up a platform for communication and mobilization in normal time.” (interviewee N-2)
6. For example, see the flood warning at http://fhy.wra.gov.tw/Pub_WebE_2012/; vulnerable maps at the National Center of Disaster Reduction (NCDR) website <http://satis.ncdr.nat.gov.tw/Dmap/102news.aspx>; and the Environmental Disaster Management Information System (EMIS) website at <http://emis.epa.gov.tw/>.
7. “We built up a website to integrate the disaster prevention information and provide it to citizens. We issue warnings of disasters through this platform so that citizens can acquire relief for themselves from the first moment. We also developed an app for citizens to download the disaster information....” (interviewee L-1)
8. “The main responsibilities of the central ministries are focusing on coordinating the operation process across different levels of governments. Because the local governments are more closed to local residents and more sensitive to local problems, we trust and empower the local government to take full responsibility of disaster prevent. The tasks of central government are focusing on providing some assistances according to the local authorities’ requests.” (interviewee C-2)
9. “I must say that the fundamental role for disaster management should be emphasized in the public sector or government. For example, in Typhoon Morakot, we were fully committed to help the government, such as evacuation assistance, materials distribution, search and rescue, and especially for asylum measures. And even during Typhoon Fanapi, we could also offer our assistance in the same way. Despite the fact that our colleagues were willing and enjoyed doing such tasks, we still think these works all play a supplemental role to the public sector or government. Whether we achieve success or not in disaster prevention still depends on the role of government, especially their integration efforts in various parts of society.” (interviewee N-2)
10. “It may be okay, but it’s hard when there is an intervention of political force. Just like we Chiayi, it’s obvious that there are legislators from the blue and green parties. This legislator and that legislator both argue for the contribution as their own.” (interviewee L-2)
11. “We formulate our flood control plan under rational analysis; it may cost the least and benefit many citizens, but some of the residents could not accept it and will ask representatives to fight for their benefits. They are fierce when negotiating and communicating, and all kinds of dirty words are said.” (interviewee C-3)
12. “The government and private sector have signed a contract which requests the private sector to prepare the appliance manufacturers on weekdays, and when disasters or accidents occur, they need to supplement the lack and inadequacies of government resources....” (interviewee C-2)

13. “They (central government) should not only stay at the office and control through telephones or the ‘clouds.’ Once something goes wrong in response, they will say that’s not our responsibility. Apparently, they should figure out some other way to assist local (groups). Some real ways....” (interviewee L-3)
14. “We can take short-term refuge, for example. This process first involves identifying the personal information of all the refugees. Under the regulation of Personal Information Protection Act in Taiwan, however, only government agencies, such as the social department—not civil organizations—have this authority. Obviously, the social department can’t deal with all the things of refugees by itself. There still exist a lot of coordination problems that need to be solved....” (interviewee N-2)
15. “We know each other, but do not have concrete interactions. When we cope with disasters, we follow the instructions of the fire department. According to the Disaster Prevention and Relief Act, we need to report for duty to the fire department.” (interviewee N-3)
16. “Mayor Chen wanted us to assist with disaster response during Typhoon Morakot, but the OOO Department of the city government did not pay any attention to civil organizations. We did interact with the military then. Although we lacked equipment, we obtained experience and knowledge. A commander in the military assigned four tanks under my command. I participated in the rescue of the 921 earthquake in 1999. I felt most of the governments could not integrate resources from civil society very well.” (interviewee N-1)
17. “We can do nothing to punish the electoral chiefs of the local government if they violate the policy direction of the central government. The duty of the chiefs of the local government is to satisfy the needs of their electorates. In Typhoon Morakot, this resulted in difficulty when we coordinated the tasks and responsibilities with the local government.” (interviewee C-2)
18. “The performance of the implementation of disaster relief also depends on the executing abilities of leaders, the experience of heritage, as well as teamwork. Close communication and coordination with local and community organizations would facilitate disaster management” (interviewee C-1).

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A Study on Collaboration between the Government and Enterprises in the Construction and Operation of China's Highway

GuangJian Xu and Yin Wu

Since the 1970s, the United Kingdom and the United States have carried out a bold privatization reform, which encouraged the private sector to participate in traditional areas of public goods provided by the government, thus triggering a worldwide wave of public-private partnership mode. On the one hand, the practice of private and public sectors cooperating to provide public goods eases the public financial pressure and helps the public sector to provide more goods. On the other hand, the provision of public goods by private sector encourages competition in the public infrastructure sector, thus the efficiency of public goods supply is enhanced. However, there are also some problems in the cooperation of private and public sectors, leading to the partnership mode changing from gloom to doom.

There are some questions in the public infrastructure sector, such as what is the relationship between public sector and private sector, how to provide public goods more efficiently, what role should the government and market play in the provision of public goods, how can the private sector provide public goods more efficiently, how can the cooperation mechanism solve the contradiction between the welfare provision of public goods and the profit-generating of private sectors as well as how can the public sector provide effective

supervision measures. This chapter will use public–private partnership (PPP) mode in China’s expressway construction and operations as an example to explore abovementioned issues so as to expound the cooperation between the government and the market on the theory and practices of development of public infrastructure.

PPP MODE AND ITS APPLICATION

The academic circles have no unified understanding about the definition of PPP, and various countries, international organizations as well as scholars have different definitions of PPP.

The European Commission released the “Green Paper on Public Private Partnership and Community Law on public Contracts and Concessions” in April, 2004. In that document, public–private partnership is defined as forms of cooperation between public institutions and the business community in order to ensure the financing, construction, innovation, management, and maintenance of infrastructure as well as services to be provided.

E. S. Savas (2002) believes that PPP mode contains three aspects of meanings: in the first aspect, PPP is a contractual arrangement of public and private sectors to participate in the production and provision of public goods or services; the second aspect refers to infrastructure projects with characteristics of privatization; the third aspect is a formal mode of cooperation between enterprises, society, and local government officials to provide high-quality public goods and services.

The concept of PPP has both a broad and a narrow meaning. The broad meaning of PPP is a conceptual category, which generally refers to the generic terms of a series of modes in private sector’s participation in financing infrastructure projects, including Build-Operate-Transfer(BOT), Build-Own-Operate-Transfer(BOOT), Design-Build-Finance-Operate(DBFO), Transfer-Operate-Transfer(TOT), privatization, and so on. While in the narrow sense, PPP refers to a specific mode of financing, and in this chapter the narrow concept is used. Ke (2008) believes that “PPP is a mode for provision of public infrastructure and services—the private sector provides the financing and construction of projects, and operates the projects in the next 25 to 30 years”. Zhang, Wan, and Jia (2008) think that Chinese academic circles understand the concept of PPP from three perspectives: PPP is the contractual relation between public and private sector to conduct long-term cooperation and coproduction of public goods; PPP is the sum of various contract types between the

public and private sectors to cooperate and provide infrastructure; PPP is a particular type of contract form to provide infrastructure.

By summing up the aforementioned definitions of PPP provided by institutions and scholars, this chapter argues that PPP is a kind of cooperation mode between public and private sector to form partnerships and jointly build and operate public infrastructure.

The implementation of PPP projects in China consists of several elements: first, the separation of ownership and operating license, that is, public sector has the ownership while the private sector has the operating license; second, the cooperation cycle of public sector with private sector, and the long-term private sector participation in public infrastructure construction and operation; third, the sharing of benefits and risks of infrastructure construction projects by public and private sectors; fourth, the “private” not only necessarily refers to private sector and private enterprises, it also refers to mixed-ownership enterprises. Therefore, social capital or private capital is usually cited in Chinese official documents, rather than the private sector or private capital. The diverse nature of PPP contracts includes Service Contract (SC), Collateralized Mortgage Obligation (OMC), Collateralised Bond Obligation (CBO), Build-Transfer-Operate(BTO), TOT, BOT, Wholesale Agreement(WA), Buy-Build-Operate (BBO), BOOT,, and other forms.

PPP mode as a particular institutional arrangement first appeared in the United Kingdom in the 1970s, afterward it has been widely applied and promoted around the world, and it reached a peak in number of projects and the level of investment in 1997. However, after 1997, actual results and investment value of PPP toll expressway projects were questioned. Only about 55 percent of projects were implemented, and the financial rate of return for those projects was unsatisfactory, thus resulting in the decrease of the number and scale of privatized expressway projects. The year 2006 witnessed an increasing trend of private sector participation in road construction on a global scale, and afterward the number of PPP projects fell again. According to the statistics provided by the Asian Development Bank, from 1990 to 2011, the number of countries or economies involving private sector in road construction reached 32, and the regional distribution was mainly concentrated in Latin America, the Caribbean region, South Africa, East Asia, and Pacific region.

The fields of PPP mode application vary from country to country depending on specific situations. The United Nations Development Programme (UNDP) classifies the application scope of PPP mode into 13 categories: water supply and treatment, solid waste disposal,

energy, public works, parks and recreational facilities, public transport, bridges and roads, regional economic development, public housing construction, communication services, health care, educational services, and other municipal services. This chapter chooses PPP mode in China's expressway construction and operations as an example to explore the cooperation and supervision between the government and the market on theory and practices of public infrastructure.

EVOLUTION OF TOLL HIGHWAY SYSTEM AND DEVELOPMENT OF PPP MODE

According to Highway law of the People's Republic of China, highways are classified into "expressways, Class I highways, Class II highways, Class III highways and Class IV highways in terms of technical grading." In this chapter, we mainly discuss the expressways and high-grade highways. The introduction of PPP mode into the field of expressway is closely related to the expressway toll system. The owner or operator of expressway is legally entitled to fee collection, and the private sector is willing to participate in public-private partnership projects, undertake the risk of project construction and operation, as well as enjoy the revenue of expressway projects. Therefore, this chapter will trace the evolution of China's expressway toll system.

Based on interrelated data, in China (refers to Mainland China, excluding Hong Kong, Macao and Taiwan, the same in the following discussion), the expressway toll system was first introduced in the Guangdong Province in the early 1980s. In order to solve difficulties such as slow road transportation and serious shortage of funds for construction, Guangdong Province first made the breakthrough on the conventional mode of expressway construction, which was totally dependent on government investment under the planned economic system—by adopting loans or self-financing mode in the construction of Guangzhou-Zhuuhai Expressway, Guangzhou-Shenzhen Expressway, and six bridges; by implementing the practice of collecting toll, which achieved good results and created a precedent for Mainland China to charge toll on the highway and bridge. Based on the experiences of Guangdong's pilot implementation on highway and bridge construction and the practice of charging toll, the State Council of China determined in December 1984 to implement policies of "loans lent for construction, charging toll for repaying" and introduced four incentive policies. After that, the Chinese government implemented "building highways with loans and charging toll for repaying" the construction and operation cost of highways throughout the country.

In October 1987, the State Council issued Regulations Governing Management of Highways in the People's Republic of China, which clearly stipulates the introduction of fee repayment of highway and bridges built by raising funds and loans, marking the legal establishment of China's toll road system. In order to standardize charges, Ministry of Transportation and Communications, Ministry of Finance, and State Administration for Commodity Prices jointly issued provisions on loans and collecting toll for the construction of high-grade highways, large bridges, and tunnels in January 1988, standardizing the toll management of expressways, high-grade roads, large bridges, and tunnels. However, on the whole, in the late 1980s, due to the constraints of the traditionally planned economic system, the reform on highway investment and financing system as well as construction of toll highways were still in the exploratory stage. The main form in practice is government loan repayment roads, which are funded by the government and traffic authorities using domestic and foreign loans, and the loans are repaid by the government by charging a toll from the users.

In the 1990s, with the establishment of the socialist market economic system, investment, and financing of highways increased gradually and toll roads took a new form: the so-called commercial highway that is constructed with the investment of domestic and international economic organizations and whose costs are compensated through toll, and reasonable profits are allowed. In 1992, the establishment of Jiangsu Shanghai-Nanjing Expressway Co Ltd marked the beginning of commercial highways. After that, a lot of companies whose main business is to operate highways were setup around China. Currently based on publicly available information from the security market, there are a total of 23 public-listed highway companies on domestic and foreign securities markets, of which 19 are listed on the Shanghai and Shenzhen Stock Exchanges. These companies are principally engaged in operating highways or high-grade highways and charge toll to cover costs and receive profits.

In order to meet the requirements of economic development, and to manage roads by law, the Standing Committee of the National People's Congress passed Highway Law of the People's Republic of China in July 1997. Under this law, the government encourages domestic and foreign economic organizations to invest in highway construction. Companies, which develop and operate roads, can issue stock and bonds to raise funds in accordance with the laws and administrative regulations. "Highway law" stipulates that the state allows the establishment of toll roads in accordance with the law, and

at the same time it controls the number of toll roads. Toll roads can be divided into two kinds, one is government loan repayment roads, which are funded by loans or capitals raised by local governments above the county level or traffic authorities; the other is commercial highways that include two types—one is toll roads with loans to be repaid by toll collection, which is transferred from government to domestic and foreign economic organizations in accordance with laws, and the other type is roads built by domestic and foreign economic organizations in accordance with the laws. Highway law introduces the concept of collection period of commercial highway, and the government of provinces, autonomous regions, and municipalities shall determine the toll collection period in accordance with the requirements of Ministry of Transportation.

To standardize the franchising activities of municipal public utilities and to strengthen its supervision, the former Ministry of Construction (now the Ministry of Housing and Urban-Rural Development) began to implement “the measures for the administration of the franchise of municipal public utilities” on May 1, 2004. This stipulates the applicable provisions of the municipal utilities’ franchise industry, basic principles, and limits participation based on qualifications of bidders. It stipulates legal proceedings of franchise operation, for selecting investors or operators, and standardizes the specific operation and implementation of franchise management, as well as protects the public interest of the utilities. On February 24, 2005, the State Council of China issued Several Opinions on Encouraging, Supporting and Guiding the Development of Non-Public Economy, and it allows nonpublic or private capital to participate in the construction and operation of various municipal infrastructures.

Since then, a large number of PPP projects emerged, such as Guangzhou–Shenzhen–Zhuhai Expressway. It was opened to traffic in 1999, with the highway mileage of 122.8 kilometers and the total investment of RMB 3.8 billion, as well as a concession period of 30 years. Jiangmen–Zhujiang Expressway (Jiangmen) was built in 2005, with a total investment of 994.5 million yuan RMB, highway mileage of 20.6 kilometers, as well as the concession period of 25 years. Beijing–Chengde expressway (Gaosha) was completed in 2006, with the highway mileage of 6.7 kilometers, project investment of 3.92 billion yuan RMB, as well as the concession period of 30 years. PPP highway projects that opened to traffic in 2005 include Jingping Expressway, Guilin–BELT Expressway, Guilin–Yangshuo Expressway, Xiang Jing Expressway, Jiangxi–Hubei Expressway,

and Shanghai–Nanzhu Expressway. PPP highway projects that were built in 2010 include Lok Yi Expressway, Qionglai-Ya'an Expressway, Leshan–Yibin Expressway, and Wuyishan–Shaowu Expressway, with a maximum concession period of 30 years.

Aiming to regulate the management of road fees, on November 1, 2004, the State Council implemented “The Regulation on the Administration of Toll Roads,” which first explicitly provides the longest charging period for two types of toll roads. In August 2008, Ministry of Transport, National Development and Reform Commission, and Ministry of Finance jointly issued “Measures for the Transfer of Rights and Interests in Toll Roads,” which made clear specifications on the assignment of toll roads. On January 1, 2009, China officially implemented the reform of tax, price, and fees on refined oil industry, and abolished highway maintenance fees and six other charges, and decided to phase out the toll system on government loans repayment second-grade highways. According to the statistics of the Ministry of Transport, from 2009 to 2012, 19 provinces completely abolished the government second-grade roads repayment fees, with a total revocation of 2,072 highway toll stations and toll road mileage of 107,000 kilometers. This action to some extent reduced economic burdens of road users.

In order to further reflect public interest in highways, Chinese Ministry of Transport issued “Embodiment Notification of State Council on Waiving the Toll of Small Passenger Car on Major Festivals,” which stipulates that China will implement free toll on cars and minibuses with less than seven seats on public holidays, such as the Spring Festival, the Tomb Sweeping Day, the Labor Day, and the National Day. The policy that benefits people was first implemented on the National Day of 2012, and achieved good social effects in general.

Before 1988, there was no expressway in Mainland China. At the end of 2013, China’s expressway mileage reached 104,400 kilometers. From 1988 to 2013, in just 25 years China built the world’s longest expressway mileage. The achievements made in China’s expressway construction and development are highly praised by the World Bank (1994), and its research report “China’s Expressway: Connect the Community with Market, Achieve Equitable Development” points out that, “No other country can largely increase its highway assets in such a short time.” We believe that the PPP mode played a great role in the rapid development of highways, expressways in particular (figure 7.1).

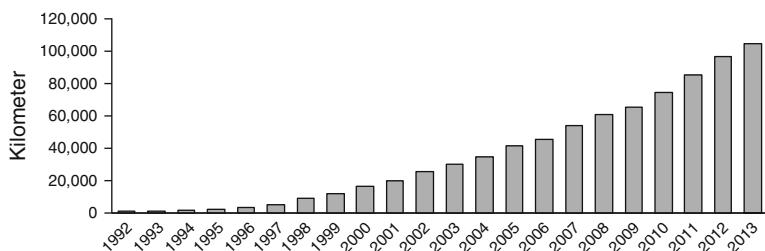


Figure 7.1 Highway mileage in China (1992–2013)

Sources: 1992–2012 from the China Statistical Yearbook: 1992–2012, 2013 data from the website of Ministry of Transport of the People's Republic of China.

COOPERATIVE MECHANISM OF PPP MODE

The Basis of Public-Private Partnerships

The reason why public and private sectors can work together and participate in PPP projects is that they have a basis for cooperation.

First, public expenditure responsibilities are expanding, meanwhile the financial revenue is limited. With the rapid social development, the Chinese government's public expenditure responsibilities continue to expand, putting pressure on public finances, while the government revenue is limited. The contradiction between the expansion of public expenditure responsibilities and revenue capacity constraints is the premise for the prevalence of PPP mode. Between the mid-1980s to mid-1990s, the main direction of economic reform was to grant power and allocate a bigger share of profits to enterprises and local governments. As a result, two proportions decreased in national income distribution, namely the proportion of fiscal revenue in GDP and the proportion of central government income in the total fiscal revenue. In this context, using fiscal funds to build expressways and high-grade highways became very difficult. While bank loans, equity financing, and various forms of fund-raising became main channels for highway construction, the government was forced by financial pressure to actively seek cooperation with the private sector in construction and operation of highways.

Second, companies providing public goods will be beneficial to improving efficiency, creating competition, and saving costs of projects construction and operation. Compared to the public sector, the private sector has a better understanding of market conditions and can provide public goods more effectively, save infrastructure investment, and reduce the total amount of investment, making highway

toll more reasonable and thus shortening the term of concession period. The cooperation of public and private sectors in infrastructure areas can also create competition within the private sector and competition between public sector and private sector. The public sector, when choosing a private sector actor as infrastructure builders, will compare different operational efficiencies and quality of construction of the various contenders, thus creating competition within the private sector. In China, different expressways adopt different modes such as government loan repayment mode and PPP mode. Different sections of expressway construction may vary in quality, and highway users will discern the difference of road conditions in different sections, promoting a competition between the public and private sector in providing public goods. If the public sector in a specific region adopts PPP mode to construct expressways and the adjacent areas do not construct expressways, or in other words financing the construction of expressways through other modes, highway users will compare road construction and operation in two areas, promoting a competition within the public sector in different regions or at different levels.

Third, expressway is a kind of club goods with congestion point, thus appropriate fees should be charged. As per the 1994 World Bank report on infrastructure, expressway is not a pure public goods, but quasi-public goods, or club goods. The highway toll will be beneficial to maintaining a reasonable size of users. The characteristics of club goods are noncompetitive and exclusionary. Expressway, as a quasi-public goods, has an important characteristic of "congestion point," that is, when the number of consumers reach the congestion point, the marginal cost is positive. Increasing the number of consumers will reduce the effectiveness of the original consumers. Buchanan (1965) believes that due to the characteristics of club goods, a distinction should be made between the peak point and nonpeak point for charge toll.

Cooperative Mechanism

There is an inevitable difference of interests and demand between public sector and private sector in PPP highway projects. The main target of the public sector is to build highways as much as possible, maintain the smooth flow of highways, to reasonably regulate highway toll, control highway toll chargeable time, maximize social welfare, and solve the problem of traffic congestion. For the private sector, the low-level target of PPP projects is to realize the maximization of

profits, and the higher-level goal is to create a good corporate image, maintain close contacts with the public sector, maximize the long-term profits, and create more project opportunities. Although short-term interest objectives between the public sector and private sector are contradictory, the long-term goals and interests of public and private sectors are consistent, which became the basis of public-private partnership mechanism.

The prerequisite for cooperation of public and private sectors in infrastructure is the market access mechanism, and state laws and regulations clearly define that relevant fields can take privatization mode in construction and operation, and enterprises can engage in fair competition in the project construction and operation. On February 19, 2005, "Several Opinions of State Council on Encouraging, Supporting and Guiding the Development of Non-public Economy" was issued by State Council, clearly defining expansion of market access of the nonpublic capital, implementation of equal access, and fair treatment principles. This government document also put forward the target of improving government franchise system, standardizing the bidding behaviors, and supporting nonpublic capital to actively participate in the investment, construction, and operation of urban water supply, gas supply, heating, public transport, sewage and garbage disposal, and other municipal utilities and infrastructure. Under the premise of standardizing transfer behaviors, public utilities and infrastructure projects, which satisfied the requirements, would transfer property rights or the right to operate to nonpublic enterprises. The document encourages the participation of nonpublic enterprises in municipal public organizations, reform of property rights system, and mode of operation of public institutions. It also provided a good market access premise for the application of PPP mode. On November 16, 2014, the State Council issued a document on the key areas of innovation and investment and financing mechanism to encourage social investment guidance, and proposed to encourage social capital, especially private capital to invest in ecology, water, infrastructure, transport, energy, information, civil space infrastructure, social undertakings, and other areas. This document further promotes social capital into public utilities.

Mechanisms of cooperation between the public and private sector also include risk-sharing mechanisms. In order to improve the ability of PPP project to resist risks, it is necessary to analyze the risk a project may face, such as macroeconomic risk, operational risk, construction risk, and income risk.

The mechanisms of cooperation may between the public sector and private sector also include government incentives. And the public

sector can take many measures such as tax breaks, government subsidies, facilities, preferential land policies to encourage private sector's participation in PPP projects, and adjust the profit-sharing ratio between public and private sectors to achieve mutually beneficial and win-win cooperation.

The smooth implementation of PPP projects is facilitated by explicit support of the government and protection under law. PPP projects with complex investment and financing relationships and flexible scheduling require a set of well-designed laws, regulations, and protection. At present, the key problem of PPP mode is the lack of legal protection. It would be appropriate if the Ministry of Finance issued a government and the social capital of cooperation mode operation guide (Trial) in 2014, providing a definition of "social capital," within the scope of the PPP mode, and the specific operational processes. PPP mode still requires more legislation to be enacted in future.

REGULATORY MECHANISM OF PPP MODE

The Necessity for Regulation

In order to ease pressure on local government finances, the Chinese government is actively promoting cooperation between the government and social capital. According to the project approved by the Ministry of Finance, in 2015, PPP projects will bloom throughout the country. However, public and private sectors have different objectives. Governments that are providing public goods with the goal of achieving maximization of social welfare focus on the public welfare of expressway projects. But the private sector, with its goal of achieving maximum profits, focuses on profit or return. Although in the long-term interests, the private sector, with the purpose of maintaining corporate social reputation, will seek to maintain long-term relationship with governments, thus abandoning the interests of short-term projects, and will take into account the quality of projects, social reputation, and governments' view of cooperative enterprise. However, inconsistencies of interests between the public and private sector lead to PPP project supervision. In the absence of effective supervision, the pricing level and the charging duration of PPP projects will be manipulated by the private sector through rent-seeking.

The objective difference between public and private sectors is expressed as the contradiction of public welfare and profit generation. But specific to the field of highway, the main problems are expressed as high toll and long charging period. Local governments at all levels

have become accustomed to use the mode of “loans lent for construction, charging toll for repaying,” and formed a relatively fixed pattern of interest and behavior. It would be difficult to take the initiative to change. Some local governments even treat highway as “cash cow” or “cash dispenser,” creating a variety of reasons and doing everything possible to extend the tolling period, and some roads or bridges and tunnels built in the 1990s are still charged toll, while the loans have long been paid off. Some local governments set up more toll stations for various reasons, inflate operating costs, and charge high toll, which ultimately are transferred to users and consumers. Based on data, in 2008, the National Audit Office audited the operation and management of toll roads in 18 provinces and cities and checked 35 commercial highways randomly in Shandong Province and 12 other provinces and cities. The results show that toll revenue in these roads were too high compared to the investment cost.

Just like other public utilities and services, highway toll needs to be public interest-oriented. After the 1990s, due to the excessive emphasis on the use of market mechanisms in expressway construction, more than 20 companies whose main business was to operate highway financing through the securities market were setup. Practice has proved that this mode may not only help to quickly raise funds for expressway construction, but also is conducive to enhancing the management efficiency. However, other factors should be considered. For instance, these companies tend to raise the level of fees in order to give shareholders a higher investment return, leading to the loss of public interest. It seems clear that if the majority of toll roads are constructed and operated by listed companies, high toll charges will be inevitable. In other words, to ensure the rationalization of the level of charges, the main body of highway construction and operation should be state-owned enterprises or state-holding enterprises. If the option of franchising is used, effective supervision and restraint mechanisms should be established.

Regulatory Mechanism

In order to solve the contradiction between public interest and profit generation in expressway PPP projects, the regulatory mechanisms of expressway should mainly reflect the following four aspects. First, expressway projects should have characteristics of information transparency: expressway project information should be comprehensive, relevant and timely, reliable, and comparable, ensuring that project

information can accurately reflect the investment, company's operating and financial information, fully show expressway project revenue, profits and opportunities that have been formed or are likely to be formed, as well as completely be understood by the public, thus implementing effective supervision on expressway projects.

Second, adhere to the principle of public interest in the setting the prices of toll. The government loan repayment roads should adhere to the principle of cost reimbursement. Commercial toll roads should adhere to the principle of cost reimbursement and meager profit, and the level of operating profit should be roughly at the same level with other utilities, taking the market competition into consideration.

Third, form reasonable toll standards, which must examine and verify costs of the operation and management of toll roads. In accordance with the requirements of the "price law" and the relevant laws and regulations, as well as the government agencies on pricing, the operators should accurately check and ratify costs involved in determining price. The government pricing agencies must follow the normal operating needs to check and ratify construction and operating costs, that preventing road operators from increasing investment randomly in order to make excuses for improving the level of toll.

Finally, in addition to supervision of governments on PPP projects, public and other stakeholders' supervision on PPP projects will also achieve an important guarantee of realizing public welfare and profit generation. An important feature of PPP mode is the partnership of public and private sectors, which means that supreme status should not be accorded to a particular sector other than the public and private sectors' public infrastructure cooperation and competition. In recent years, with the rise of the concept of civil society and nontraditional media such as the Internet, public participation enthusiasm in PPP projects supervision is growing rapidly. Public participation in the supervision of PPP projects can effectively prevent the private sector from rent-seeking and reduce risk of the public interest of PPP projects.

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P A R T I I I

Intergovernmental and Interpersonal Networks

China's Regional Networked Governance: The Case of “9+2” Networks of Interlocal Agreements*

Bin Chen, Jie Ma, and Liming Suo

INTRODUCTION

China's phenomenal economic performance has largely been attributed to a competitive environment in which local governments compete with each other to attract business investment, resources, and talent. Recently attention has turned to the efforts that involve collaboration among multiple jurisdictions at the regional level. Local governments increasingly confront policy problems that span the boundaries of individual geographic jurisdictions. The need to work together has clustered them into several large regional collaborative zones to address positive and negative interjurisdictional externalities caused by rapid social and economic growth. China's major regional collaborative zones include the Beijing-Tianjin-Hebei Metropolitan Region, the Yangtze River Delta, the Pan Pearl River Delta, and the Mid-China region (Ye 2009). Despite the fanfare of media coverage, how these regional collaborative zones work is still unknown. The purpose of this paper is to examine one type of regional collaborative mechanism—interlocal agreements (ILAs) from a network perspective. ILAs are formal and informal arrangements (joint planning, joint policy initiatives, joint programs, contracts, and others.) where one local government collaborates with another or in which multiple jurisdictions pool their resources for joint problem solving, better coordination, and diffusion of innovation. Scholars and researchers

also recognize that multiple local governments that participated in multiple interlocal agreements became regional-level networked governance (Hu and Ma 2011; Thurmaier and Wood 2002). Regional networks of jurisdictions connected through multiple interlocal agreements are manifestations of regional collaborative governance.

There are four sections in this chapter. The first section aims to illustrate how the scholarly and practical interests on regional governance have shifted from a vertical and hierarchical dimension to a horizontal and networked one. In the second section, we present the Pan Pearl River Delta (PPRD) as a case study of regional networks through ILAs. Also known as “9+2,” the PPRD is made up of nine mainland provinces of Fujian, Jiangxi, Hunan, Guangdong, Guangxi, Hainan, Sichuan, Guizhou, and Yunnan, and two special administrative regions of Hong Kong and Macau. We will analyze a data set of 191 ILAs coparticipating from these 11 jurisdictions to examine what policy issues these ILAs intend to address. We track their trends of growth over the years and compare their scale and scope across different policy areas. The findings will shed light on the questions—what is the scope of interlocal agreements in PPRD? Are they used more in one type of policy domain than another?

Since “9+2” members are connected by their joint participation in 191 interlocal agreements, they constitute a number of two-mode networks for our analysis. In the third section, we construct seven two-mode networks, one for each policy area. Each two-mode network data will be transferred to one-mode network data: jurisdiction-to-jurisdiction network. By employing various network analytical techniques, we will provide answers to the following questions: How interconnected are these PPRD members through ILAs? Do the degrees of joint participation vary across different policy domains? Are some “9+2” members more connected than others? Which jurisdiction occupies a central position and which one are least central in each network? We conclude the chapter in the fourth section with some implications of our findings for China’s regional networked governance.

CHINA’S PATH TO REGIONAL NETWORKED GOVERNANCE

There are two prominent streams of literature on regional governance—vertical versus horizontal. Vertically, there has been a long tradition of studying intergovernmental management, particularly the functioning of administrative and fiscal federalism—the relationships between federal, state, and local governments as well as their

implications for maintaining macroeconomic stability, creating an equitable distribution of income and efficiently allocating resources (Oates 1999; Colan and Posner 2008).

The literature on the horizontal stream primarily concerns which metropolitan governance structure may help or hinder social and economic development (Nelson and Foster 1999). Three schools of thoughts—centralist, polycentrist, and regionalist—compete for dominance in the debate (Wallis 1996). While the centralists favor consolidation of small, multiple, and fragmented local governments; the polycentrists posit that a system of decentralized and overlapping governments is a virtue, rather than a signal of chaos or inefficiency (Leland and Thurmaier 2000). With the driving force of interjurisdictional competition, local government structures will be streamlined to produce a mixed bundle of services or taxes that matches the heterogeneous preferences of firms and residents (Ostrom, Tiebout and Warren 1961; Tiebout 1956).

The third school of thought, represented by regionalists, rises above the centralist versus polycentrist debate. Their primary concern is the role of regional governance mechanism in dealing with issues of regional significance. Policy issues of economic development, air pollution, transportation infrastructure, and others, are cross-boundary in nature and therefore require regional solutions for collaborative decision-making (Feiock and Scholz 2010). The regionalists focus on identifying more flexible, voluntary, and horizontally linked arrangements of delivering services and joint decision-making (Savitch and Vogel 2000). These alternative arrangements between local governments across jurisdictions can take many forms, ranging from voluntary memorandums of understanding, mutual aid agreements, and joint planning agreements to more legally binding mutual contracts, and from relatively simple joint service agreements to more complex, ongoing interactions involving multiple governments.

These collaborative mechanisms can be all categorized into inter-local agreements, ranging from simple dyadic relationships to complex networks of multiple local governments even with private and nonprofit actors. The simple dyadic case involves management of a contractual relationship (formal or informal) while the latter requires local officials to manage their duties in a network fashion. This “complex networks” approach suggests a large number of independent governments voluntarily cooperating through multiple, overlapping webs of interlocal agreements (Thurmaier and Wood 2002). Such range in the scope and depth of interlocal agreements enables researchers to apply a network approach to studying regional governance.

Research on China's regional governance started with a vertical dimension. Earlier studies have focused on the utility of administrative and fiscal decentralization in sustaining the economic reforms in terms of central-local relationships (Shirk 1993). The development of China's central-local interaction was touted by political economists as a model of "market-preserving federalism" (Qian and Weingast 1996) in which the central government incentivized local governments to undertake reforms, generate more revenues, and allocate resources to meet their own needs. At the horizontal level, the reform unleashed the entrepreneurial spirit of local governments, fuelling the rapid growth of local economies, a market-oriented scenario that would be favored by polycentrists. Yet, just like centralists in the United States, opponents pointed out that that fiscal decentralization elevated efficiency over equity, produced "race-to-the-bottom" competition between local governments, and encouraged local officials to protect their own markets by erecting administrative blockades (Chen 2004). While central authorities advocated for coordinating the national economy as a common market, the local authorities in pursuit of revenue were dividing it up. Even when the central government enjoyed authority over the lower level governments, it faced the problem of monitoring the compliance of multiple jurisdictions with different local conditions.

Over time, China's local governments began to recognize that the decisions or actions of one government affect the actions of others. According to a survey of local officials, this recognition of interdependency led to more horizontal and collaborative approaches when two or more local governments seek to create a desirable outcome through coordination or cooperation, rather than competition (Shi 2008). Accordingly, Chinese researchers call for a shift of scholarly interests toward regional governance (Yang and Chen 2004). Collaboration between local governments is believed to be one of the policy instruments used to address policy issues of regional significance, particularly for the purposes of economic integration, industrial restructuring and joint planning, and transjurisdictional problems, and regional public goods (Yang and Peng 2009). Examples of specific policy issues that require regional collaboration include environmental protection, infrastructure, economic development, and public crisis and emergency (Ma 2010). Chinese scholars also explore the motivations of forming collaborative relationships among the local governments. The motivating factors are found to be geographic proximity and regional economic development level, as well as political, institutional, cultural, and historical factors. Also

one local government's participation in regional networks spurred the other local governments to jump on the bandwagon. They did not want to be left behind (Sun 2013).

Interlocal or intergovernmental agreements have been treated as institutional innovation in China's regional governance and therefore have received a lot of attention. According to Yang's study (2011), on the basis of different participating actors, these agreements can be classified along the three dimensions: vertical, horizontal, and cross-jurisdictional. The vertical agreements refer to the ones signed either between central and local governments or between provincial and municipal governments in a hierarchical fashion. The horizontal agreements are those between governments in the same administrative levels, for example, interprovincial, intermunicipality, intercounty as well as interagency agreements. Other agreements could be made between governments at different administrative levels and therefore are cross-jurisdictional. According to their policy nature, some agreements are designed to address boundary and jurisdictional issues, some are distributive and developmental, some are regulative, and others are more redistributive (Yang 2011).

In addition to centralized authority and market competition, networked governance has been proposed to be a better regional coordinative mechanism (Lu 2008). For example, a government-led network was proposed for the Jing-Jin-Ji metropolitan region (Ma 2010). An interlocal agreement between two local government units constitutes a dyadic relationship. If each unit also participates in other agreements with other local governments, together, these relations form macro-level regional governance that comprises a set of actors in a network structure (Thurmaier and Wood 2002). Over time, embedded relationships with other local governments accumulate into a regional cooperative network (Hu and Ma 2011). However, the current studies have not yet gone beyond theoretical discussion and there is a notable lack of empirical studies. Even fewer studies apply a network approach to empirically investigating China's ILAs.

INTERLOCAL AGREEMENTS IN PAN PEARL RIVER DELTA

The Pan Pearl River Delta (PPRD), also known as "9+2," was initially suggested in July 2003 by Zhang Dejiang, the Party Secretary of Guangdong and a member of Politburo, as a development strategy of fostering an integral regional economy (Yeh and Xu 2011). As one of China's four major regional cooperative zones, the "9+2"

area spans across China's four geographic areas—eastern, southern, central, and southwestern parts, covering nine coastal and inland provinces of Fujian, Jiangxi, Hunan, Guangdong, Guangxi, Hainan, Sichuan, Yunnan, and Guizhou and the two special administrative regions (SARs) of Hong Kong and Macau. Although member provinces are mostly contiguous and located in the Pearl River Basin, it embraces one fifth of China's total territory and 55 percent of the mainland coastline.

As shown in table 8.1, the PPRD carries a third of China's population (480 million) and contributes 36 percent to China's GDP. It is a very vibrant regional economy with an average growth rate of 10.8 percent, 0.7 percent higher than the national average of 10.1 percent. Not including Hainan, Hong Kong, and Macau, the GDP growth rates of other eight "9+2" members are all above the national average. The statistics in table 8.1 also suggest that the PPRD is also marked by huge variations in economic performance. The nine provinces and two regions are categorized into four different development levels (Lei, Li, and Chen 2006). While Hong Kong and Macau are considered as the two wealthiest members each with per capita GDP over five to ten times that of the national average, Guangxi, Yunnan, and Guizhou are treated as three "underdeveloped" provinces with their per capita GDPs well below the national level. In between, Guangdong and Fujian are two "developed" provinces with their per capita GDPs higher than national average by 30–40 percent. Hainan, Hunan, Jiangxi, and Sichuan are four "developing" members with per capita GDPs ranging from 75 to 87 percent of China's national per capita GDP. The per capita GDP of Guangdong, the wealthiest province in the mainland, is almost three times that of Guizhou, the poorest. The per capita GDP in Macau is 22 times that in Guizhou.

To examine the scope of PPRD's regional cooperation, we compiled a dataset of 191 ILAs participated by nine mainland provinces and two SARs over the time period of 11 years. These are publicly available data published by www.pprd.org.cn. We grouped them into seven areas of policy issues: environmental protection, tourism development, transportation infrastructure, science or technological or cultural exchange (STC), migrant labor, public health, and trade development. These policy issues are clearly transjurisdictional in nature.

In figure 8.1, we plotted 191 agreements in seven policy areas from 2003 to 2013. In the earlier years, the ILAs heavily concentrated on economic and trade development. In 2003, four agreements were signed—one for tourism development, one for SCT, and two for trade. Over the years, the number of other nontrade-related

Table 8.1 Socioeconomic statistics for Pan Pearl River Delta, 2012

Province/SAR	Population (millions)	Land area (10,000 square kilometers)	GDP (billions of USD)	GDP per capita (USD)	GDP growth rate (percentage)
Fujian	37.5 (2.8%)	12.4 (1.3%)	313.5 (3.8%)	8,394 (137%)	11.4 (113%)
Jiangxi	45.0 (3.3%)	16.7 (1.7%)	206.0 (2.5%)	4,582 (75%)	12.3 (122%)
Hunan	66.4 (3.9%)	21.2 (2.2%)	352.5 (4.3%)	5,327 (87%)	10.1 (100%)
Guangdong	105.9 (7.8%)	18.0 (1.9%)	907.9 (11%)	8,606 (141%)	11.5 (113%)
Guangxi	46.8 (3.5%)	23.7 (2.5%)	207.3 (2.5%)	4,447 (73%)	11.8 (117%)
Hainan	8.9 (0.7%)	3.5 (0.4%)	45.4 (0.6%)	5,151 (84%)	9.9 (98%)
Sichuan	80.8 (6.0%)	48.5 (5.1%)	379.8 (4.6%)	4,711 (77%)	13.6 (135%)
Guizhou	34.8 (2.6%)	17.6 (1.8%)	109.0 (1.3%)	3,136 (51%)	12.0 (119%)
Yunnan	46.6 (3.4%)	39.4 (4.1%)	164.0 (2.0%)	3,531 (58%)	14.9 (148%)
Hong Kong	71.6 (0.5%)	0.1 (0.01%)	249.3 (3.0%)	35,433 (580%)	1.5 (15%)
Macau	0.6 (0.04%)	0.003 (0.0003%)	39.63 (0.5%)	69,628 (1139%)	9.9 (98%)
PPRD total	479.9 (35.4%)	201.1 (21.0%)	2,974.3 (36.0%)	13,904 (227%) ^a	10.8 (107%) ^a
All China	1,354 (100%)	960 (100%)	8,256.2 (100%)	6,113 (100%)	10.1 (100%)

Note: (1) Numbers in the parentheses are the percentages of the national total; (2) GDP and GDP per capita values were converted to US dollars at the rate of 6.2855.1.

Source: *China Statistic Year Book*. 2013. <http://www.stats.gov.cn/tjsj/ndsj/>.

^aNumbers are average values of 11 provinces and special administrative regions.

agreements began to pick up. Now, the “9+2” cross-regional cooperation has extended from trade and economy to many other areas of environment protection, migrant labor, and public health.

We also present the distribution of ILAs along seven policy arenas. As seen in figure 8.2, environmental protection and tourism development are the two largest groups of ILAs between 2003 and 2013 (42 agreements each). As a by-product of industrialization and rapid

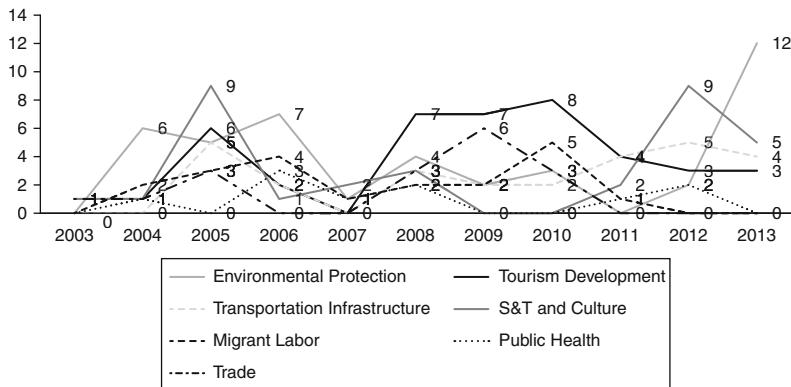


Figure 8.1 Interlocal agreements in Pan Pearl River Delta (2003–2013)

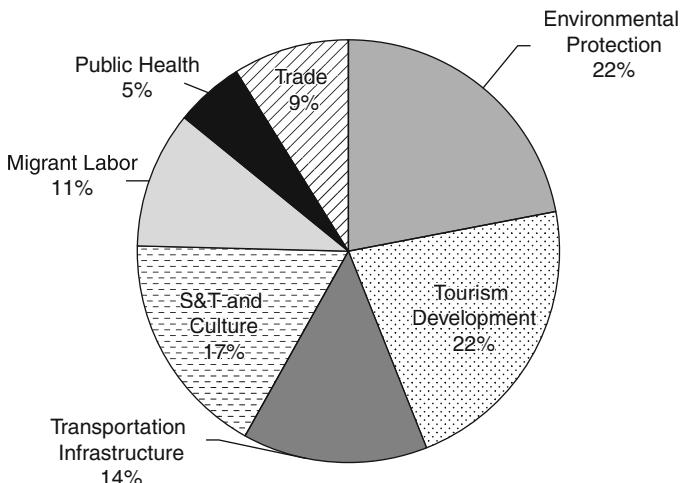


Figure 8.2 Distribution of 191 interlocal agreements

economic progress, China has seen its environment deteriorate. Clean air and water are clearly public goods and to achieve it, the collective efforts of all the parties affected are needed. Many mainland PPRD members are loosely tied together through the tributaries of the Pearl River. Protecting water resources across the administrative boundary, therefore, became their common concern. For example, in 2012, all the mainland “9+2” member provinces formulated a guideline on dealing with disputes on cross-boundary water pollution. From tropical beaches to snow-capped mountain peaks, ancient history to ethnic minority cultures, the provinces within the PPRD region offer many different attractions for visitors to explore. Hong Kong and Macau also became the two primary destinations for mainland Chinese to travel overseas. A number of bilateral and multilateral agreements were signed to promote and coordinate tourism industry development. In 2008, Guangdong signed agreements with its neighboring provinces of Fujian and Jiangxi to jointly market Hakka cultural heritages.

The second and third largest groups of agreements fall in the areas of S&T and culture (33 agreements) and transportation infrastructure (37 agreements). Facing stiff global and regional competition, collaborations on scientific and technological innovations are the keys to economic success. In 2006, research institutions in Guangdong, Guangxi, Fujian, and Hainan signed an agreement to share some of their advanced scientific research equipment. Well-developed transportation infrastructure is instrumental to the free flow of goods, material, and personnel, and requires regionwide planning and coordination. In 2005, Guangdong signed collaborative agreements with Jiangxi, Hunan, Fujian, and Guangxi to conduct interprovincial highway planning. Collaboration related to regional development and infrastructure planning also extended to railway, sea, and river transportation in 2011–2013.

The fourth largest group of agreements is in the area of migrant labor (20 agreements). The PPRD has always witnessed huge waves of migrant workers. Millions of workers from moderately and underdeveloped provinces, like, Sichuan and Guizhou, migrated to the developed provinces of Guangdong and Fujian for job opportunities. The policies pertaining to social security and workers' rights need permanence across the region. In 2006, an agreement on protecting migrant workers' rights was signed among labor unions in different provinces.

The group of trade agreements ranks fifth (17 agreements). As developed regions, Guangdong, Hong Kong, and Macau need to expand their economic forces further to neighboring areas. At the same time, neighboring regions need to realize the benefits of cross-regional development. In 2003, Closer Economic Partnership

Arrangements (CEPAs) was signed with Hong Kong and Macau on June 29 and October 18 respectively. The “9+2” members also strive to remove intraregional trade barriers. One of the objectives stated in CEPAs is to progressively reduce or eliminate tariffs and nontariff barriers substantially on all the trade in goods.

There are only 10 agreements in the area of public health, ranking sixth. A frequent movement of people makes it increasingly difficult to manage a public health crisis. Infectious diseases, such as outbreak of severe acute respiratory syndrome (SARS) in 2002, do not recognize the administrative and geographic boundaries. As a reflection of their common concerns, a number of agreements on public health were signed by Guangdong, Hong Kong, and Macau from 2004 to 2013.

PAN PEARL RIVER DELTA AS REGIONAL NETWORKS

To explore the PPRD regional governance from a network perspective, we turned to the two-mode network analysis of the “9+2” interprovincial networks, defined as the set of relationships among provinces and SARs created by their common participation on agreements. Most social network analyses involve one-mode networks that consist of a single set of actors. The “9+2” regional networks we studied are two-mode, consisting of one set of actors and one set of events. Such networks of actors are tied to each other through their participation in common events, and common events linked through multiple memberships of actors, are also referred to as affiliation networks (Wasserman and Faust 1994).

We employed UCINET, analytical software for network analysis (Bargotti, Everett, and Freeman 2002) to create seven two-mode affiliation networks, one for each policy area, that linked individual “9+2” members based on their joint participation on agreements. A two-mode matrix can be transferred to a one-mode projection matrix: a jurisdiction-to-jurisdiction network. It is a network of ties between the PPRD members that develop on the basis of joint involvement in common agreements. A jurisdiction-to-jurisdiction network reveals how many agreements any pair of jurisdictions jointly signed. For example, if eight agreements were participated by two jurisdictions X_{i1} and X_{i2} together, the value in the matrix cell would be $X_{(i1, i2)} = 8$.

Network Connectedness

To what extent the “9+2” members are interconnected? Do their connections vary across different policy issue networks? To answer these two

Table 8.2 Densities of jurisdiction-to-jurisdiction networks in seven policy areas

<i>Inter-jurisdictional networks (co-participation)</i>	<i>Density scores</i>
Environment	14.84
S&T and culture	13.52
Migrant labor	12.15
Transportation	11.60
Tourism	11.31
Trade	2.98
Public health	2.73

questions, we look at one network metric—density, which measures the degree to which a network is connected. In binary one-mode networks, network density is the number of ties in a network, expressed as a proportion of the maximum possible number of ties. In valued one-mode projection of two-mode networks, the network density is calculated as the average value of tie strength across all ties. In other words, it is the average number of agreements that all the pairs of jurisdictions coparticipated. By using the measure of density, we could determine the degree of shared participation of ILAs among the PPRD members. The larger the density score, the more coparticipation of the agreements, and more connected the network is. In table 8.2, we present the network density values of jurisdiction-to-jurisdiction networks in seven policy issues.

The largest group (environment) in figure 8.2 still topped the list in table 8.2 with a density score of 14.84, indicating that the policy issue of environmental protection sees the most connected networking ties among 11 jurisdictions. The group of tourism development agreements also accounts for the largest share of total agreements in figure 8.2. Yet the jurisdiction-to-jurisdiction network on the policy issue of tourism only ranks fifth with a density score of 11.31. In other words, the average number of tourism agreements that the PPRD jurisdictions coparticipated is around 11. The third largest group of science and technology (S&T) and culture agreements upgraded to the second place in terms of density. It is the network of migrant labor policy issue that has the largest gains, moving from the fifth in figure 8.2 up to the third in network density ranking. The rankings for trade and public health policy networks remain unchanged.

NETWORK VISUALIZATION

To ascertain the extent to which some PPRD members are more connected than the others through their overlapping participations

of multiple agreements, we used Net-Draw, a network visualization function embedded in UCINET to visually display the structural configuration of interjurisdictional network in seven policy areas. Net-Draw allows for a number of analytical procedures to be undertaken to determine the types of shared relationships among the “9+2” members. The findings are presented as five sociograms from figure 8.3a to figure 8.3e. In each figure, the symbols of a square represent jurisdictions. To better represent the network structure visually, we deliberately placed provinces and SARs into the layout that is consistent with their administrative boundaries and geographic locations. The lines connecting squares refer to their joint participation of agreements. Also note that some lines are thicker and some are thinner. The sizes of lines indicate the strength of connections and are in proportion to the number of agreements they have in common. The thicker lines represent more agreements and the thinner lines less agreements. As we illustrate each of the figures below, one of the strengths of network visualization is that it can reveal both loose and tight structures (Fataar 2006).

The interjurisdictional network connected through collaborative agreements in environmental protection is shown in figure 8.3a. The six provinces of Yunan, Guizhou, Hunan, Jiangxi, Guangdong, and Guangxi are found to form a tight substructure in the center of the PPRD, primarily because of their geographic proximity. The structural configuration looks like one where a square, consisting of four immediately neighboring provinces (Guizhou, Hunan, Guangdong, and Guangxi) is embedded in a large trapezoid (Yunan, Guizhou,

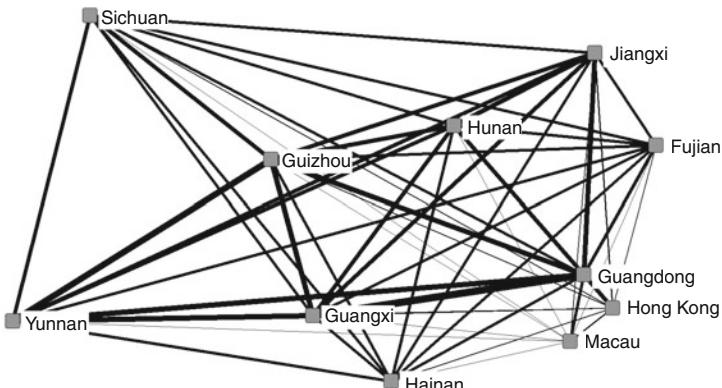


Figure 8.3a Environmental protection

Hunan, Jiangxi, Guangdong, and Guangxi). The network structural configurations of transportation infrastructure and trade look very similar to that of environmental protection. So we do not display their network maps. This is perhaps because geographic proximity is a key determinant in fostering interjurisdictional collaboration for addressing the issues of environmental protection, transportation infrastructure, and trade development.

Figure 8.3b depicts the interjurisdictional network formed through collaborative agreements in scientific, technological, and cultural collaboration. There is a fairly extensive amount of agreements shared among the PPRD members. Yet the strength of ties varies. As the sizes of lines indicate, mainland provinces have much stronger relationships with each other than their interactions with Hong Kong and Macau. There are two subnetworks—all the mainland members tightly connected as one block and Pearl River Delta (Guangdong, Hong Kong, and Macau) as the other block. It is Guangdong as a coastal province that plays a bridging role between mainland members, Hong Kong and Macau through S&T and cultural collaboration. This structural pattern is consistent with the fact that the “9+2” members are in different economic development stages. It is hard for most developing and underdeveloped inland provinces to engage in substantial scientific, technological, and cultural exchanges with Hong Kong and Macau, the two most developed members.

The sociogram in figure 8.3c clearly demonstrates a pattern of workers migrating from underdeveloped and developing inland provinces to developed coastal areas. Cities in Guangdong Province have

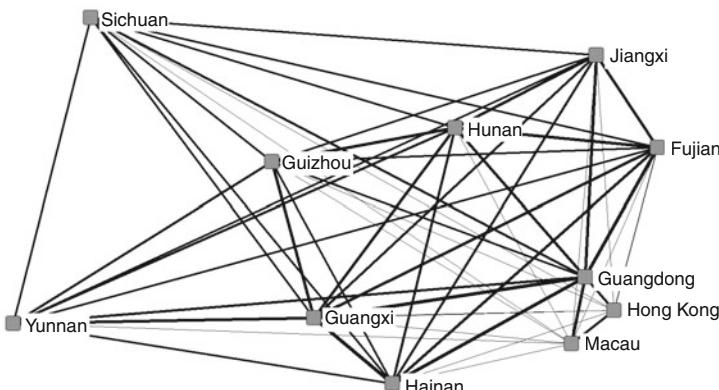


Figure 8.3b S&T and culture

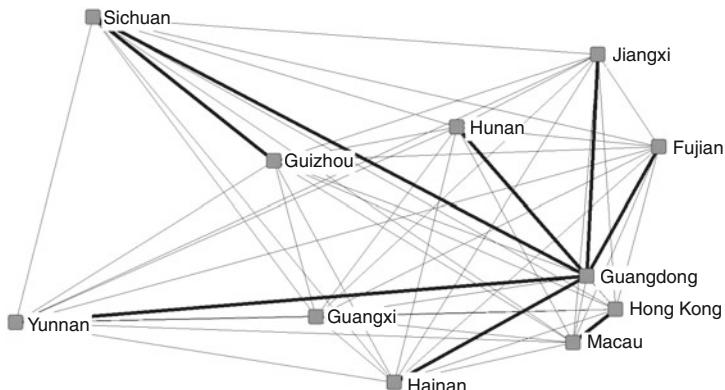


Figure 8.3c Migrant labor

been destinations for workers migrating from poor inland provinces. What emerged is a star-like structure where strong ties radiated from Guangdong, situated as the hub, to the provinces of Sichuan, Yunnan, Hainan, Fujian, Jiangxi, and Hunan at the rim. Although also being part of inland provinces, Guizhou and Guangxi had less extensive ties with Guangdong. It might be because these two provinces are overshadowed by Sichuan as the largest labor-exporting province. As pairs—Sichuan and Guizhou, and Hong Kong and Macau—they are geographic neighbors and therefore each has witnessed extensive coparticipation of agreements on labor and manpower. However, an examining of specific agreements suggests a difference. While the focus of collaboration between Sichuan and Guizhou is on low-skilled workers, Hong Kong and Macau are primarily involved in exchange of highly educated talent.

Figure 8.3d displays the sociogram of an interjurisdictional network on the policy issue of tourism development. The three provinces of Guangdong, Jiangxi, and Fujian developed a strong triangle among themselves and Guangdong also built a strong tie with Guangxi. The sociogram in the public health area (figure 8.3e) demonstrates a fairly strong and equally distributed degree of interconnectedness among geographically close mainland provinces. What is worth noting is that Guangdong, Hong Kong, and Macau are so connected to each other that they developed an “iron triangle” with very thick lines connecting them. The closure of the triangle is usually an indicator of a strong and bonding network structural configuration. Across all the seven networks, Hong Kong and Macau as two special

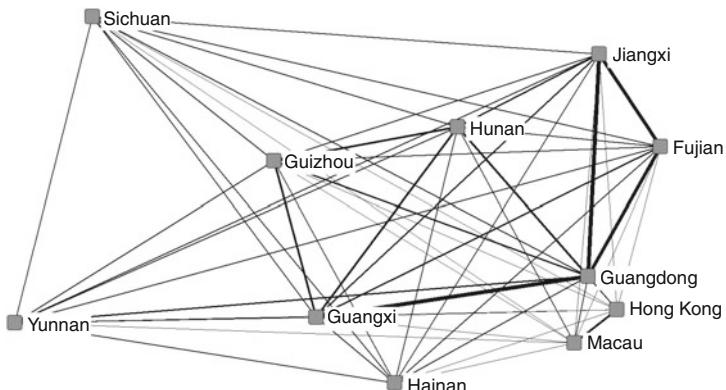


Figure 8.3d Tourism development

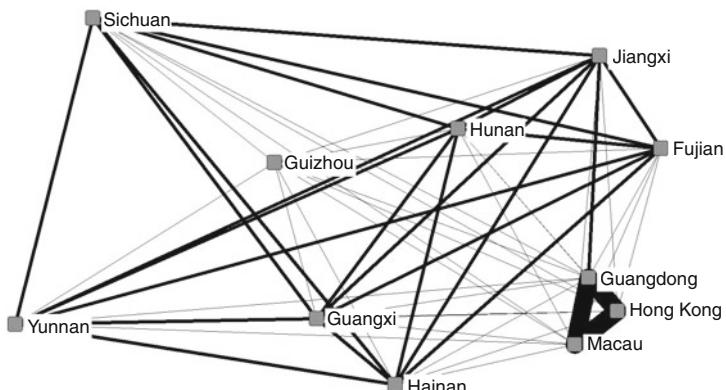


Figure 8.3e Public health

administrative regions, under the institutional arrangement of “one country and two systems,” were usually loosely connected to most mainland provinces. Their connections with mainland were primarily through Guangdong.

Degree Centrality

Social network analysis can also help identify most central and least central actors in a network. We used the network metric of degree centrality to measure the degree to which a jurisdiction is centrally

located in the “9+2” networks. Degree centrality is an important structural attribute of social network studies because it identifies how important an actor is within a social network. It is usually an indicator of an actor’s prominence and power within a network. By comparing the positions of specific jurisdictions—in terms of their relative centrality—across the networks, we provide information about the role of each jurisdiction—in the PPRD regional networks. In one-mode networks, degree centrality is simply the count of the number of an actor’s ties, which is then normalized by network size. In two-mode networks, there are one set of actors and one set of events. The affiliation relation relates each actor to a subset of events and relates each event to a subset of actors. Consequently, the centrality of an actor is proportional to the sum of the centralities of the events to which it belongs and the centrality of an event is proportional to the sum of the centralities of the actors that are members of the event (Faust 1997). To take into account such duality, we applied a two-mode centrality analysis in UCINET to our data. UCINET generated two sets of degree centrality scores: one for jurisdictions and the other for agreements. We present the results of jurisdictions in table 8.3 where the PPRD members are ranked on the basis of their degree centrality scores.

The most obvious finding is that Guangdong is the most central member as its degree centrality scores topped across all the seven policy areas. The result comes as no surprise. The pivotal network position Guangdong occupied is mainly due to its economic power, geographic advantage, and political status. As the wealthiest among the mainland members, Guangdong is among the first Chinese provinces to benefit from the economic reforms following 1978; and it is always considered to be one step ahead of the rest of China. The province is located at the end of Pearl River Basin and connects the mainland to Hong Kong and Macau. The party secretary of Guangdong is usually a member of the Politburo (the Political Bureau of the Central Committee of the Communist Party of China), which is the highest decision-making body in China. This gives Guangdong a higher political status than other provinces with regard to the PPRD cooperation. Fujian, though one of the two developed provinces, does not enjoy the same prestigious status as Guangdong. Most of its rankings are above or around middle levels with even one in the low end (trade).

Three underdeveloped provinces of Guangxi, Guizhou, and Yunnan are in the low range of rankings in the areas of migrant labor, public health, and trade. While Guizhou and Yunnan remains at or below the middle level, Guangxi ranks second in the areas of environment,

Table 8.3 Two-mode centrality ranking of provinces and SARs in PPRD networks of interlocal agreements (measured as degree centrality)

Ranking	Provinces and SARs (normalized degree centrality score)						
	Environment	Tourism	Transportation	SC-T and culture	Migrant labor	Public health	Trade
1	Guangdong (0.94)	Guangdong (0.83)	Guangdong (0.93)	Guangdong (0.88)	Guangdong (0.90)	Guangdong (0.90)	Guangdong (0.65)
2	Guangxi (0.60)	Guangxi (0.55)	Guangxi (0.70)	Guangxi (0.64)	Sichuan (0.70)	Hong Kong (0.80)	Hong Kong (0.48)
3	Guizhou	Jiangxi	Hainan	Fujian	Fujian	Macau	Sichuan
4							
5							
6							
7							
8							
9							
10							
11							

tourism, transportation, and S&T and culture. Guangxi's relative central network position in these areas is due to its geographic advantage. It is located in the place where China-ASEAN Free Trade Zone and the PPRD connect. Despite their low rankings in most policy areas, Guizhou and Yunan moved up to the third and fourth in the policy area of environmental protection as these two provinces are rich in environmental resources.

Among four developing provinces, Hunan is mediocre with all the ranking around the middle level. Jiangxi is seen to have some fluctuations with some rankings slightly above and others below the middle levels. Hainan's ranking fluctuates even more than Jiangxi's. On the one hand, Hainan ranks almost to the end in three areas (environment protection, tourism, and trade); on the other hand, its rankings in other areas are well above or slightly below the middle. Sichuan is perhaps the biggest outlier. As the second most populated province and second largest economy in PPRD, Sichuan is neither a part of the Pearl River Basin nor contiguous to Guangdong geographically, ranking second and third in the areas of migrant labor and trade. Yet its rankings in other areas are well below the middle and even toward the bottom. Overall, Sichuan does not seem to be very active in "9+2" cooperation.

Hong Kong and Macau as the two special administrative regions have very different legal and administrative systems from mainland provinces. Their rankings in most areas are below the middle with some at the bottom. Yet they are the PPRD's windows to the outside world. Because of geographic proximity and economic interdependence, they have higher stakes in the areas of public health and trade relationships. Their rankings in the area of public health jumped to second and third. In the network of trade agreements they are positioned in second and third.

CONCLUDING DISCUSSION

Since the late 1990s, efforts to form regional collaborative networks have proliferated in many parts of China. This has led to a shift of scholarly interest toward horizontal and networked regional governance. What we know little about is how they are actually working. As network analysis can be a powerful analytic tool in researching governance, this chapter contributes to the literature about China's regional governance, empirically and conceptually, using an analysis of interjurisdictional networks of nine provinces and two special administrative regions, connected through interlocal agreements within the

Pan Pearl River Delta. We draw three implications and one caveat in our findings for theory and practice of collaboration.

First, local governments in China have been always criticized for diversion of scarce public resources to economic development and diverting attention from environmental and social concerns (Xu and Yeh 2011). Even in regional cooperation, the primary focus had always been on the issues related to local economic development. Yet the results of our analysis suggest a different story. The total number of agreements on economic development (tourism, transportation, and trade) is 86, less than 105 agreements concerning social issues (environmental protection, public health, labor, and S&T and culture). However, the share of agreements across seven policy domains only reveals part of the whole picture. They do not tell us the extent of overlapping participation of multiple agreements. Our network analysis further reveals that on average, the PPRD members have the highest coparticipation of ILAs on policy issues of environmental protection, S&T and culture, and migrant labor. This finding suggests that local governments have begun to assume the role they are supposed to play—providing public goods and services, as opposed to simply pursuing economic growth. However, the issue of public health does not receive a lot of attention for the “9+2” interjurisdictional collaboration. With the smallest share of total agreements, its shared participation of “9+2” members is also the lowest.

Second, the visualization of the PPRD network structures provides us with some clues on what may drive the PPRD members’ participation of regional cooperation. The “9+2” is intended to serve as an informal partnership in which its members participate on a voluntary basis and are free to pursue strategies on which they agree. In the absence of a centralized decision-making authority, geographic proximity and resource complementarity seem to determine the PPRD members’ commitment to work with each other. The provinces of Guizhou, Hunan, Guangdong, and Guangxi, located in the PPRD’s heartland, who are immediate neighbors,, are found to have very extensive shared participation in multiple areas of agreements. Hong Kong and Macau, on the other hand, are geographically far away from many inland provinces and thus do not have much coparticipation with them. The network structure of migrant labor demonstrates the role of resource complementarity in fostering collaboration between many inland provinces as the homes of migrant workers with Guangdong as their final destination.

Third, the central positions of Guangdong in all the networks, identified by our analysis, illustrate its leading roles in the PPRD

regional governance. Being cognizant of its prominence, the leadership in Guangdong should not only take initiatives in addressing key regional issues, but also be careful not to compromise other PPRD members' autonomy. Understanding the network structure will also help them identify the gaps in regional cooperation. Guangdong may encourage those more peripheral provinces to increase their participation in addressing the issues of regional concerns. The network analysis of this nature can also help individual "9+2" members have a better understanding of their roles and positions in PPRD. They might contemplate the strategies of being more engaged with other members. For example, despite the fact that they are under different political and administrative systems in one country, Hong Kong and Macau should find ways to be more integrated into the "9+2."

Finally, the findings from this study should be interpreted with caution. One important caveat is that we only examined the network connections through interlocal agreements signed by PPRD members. A wide scope of coparticipation does not necessarily foretell effective implementation of these interlocal agreements and ultimately the success of addressing these policy issues. More research needs to be done to investigate the extent to which regional issues are addressed by these joint efforts. Future research should also be conducted to study China's other regional collaborative zones from a comparative angle.

NOTE

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Public Decisions in Private Networks: The Implication of Networking Upward, Downward, and Outward Relations for Decision Making in China

Elaine Yi Lu

INTRODUCTION

Decision making is an important function of governments. The pursuit of effective decision making is as old as the history of governments. Yet, its process and dynamics continue evolving. Some earlier writings suggested that such terms as the “black box,” the “bounded rationality” (Simon 1947), or as Stone (1997) termed, the “paradox,” are often associated with decision making in general and government decisions in particular. A more recent interesting angle, with increasing prevalence, is the role of networks in policy decision making and management (O’Toole 1997: 45–52; Provan and Milward 2001: 414–423; Romzek, LeRoux, and Blackmar 2012: 442–453; Agranoff and McGuire 2003). Networks are “structures of interdependence involving multiple organizations or parts thereof, where one unit is not merely the formal subordinate of the others in some larger hierarchical arrange” (O’Toole 1997: 45–52, p. 45). In that same article, O’Toole suggested several descriptive tasks that require sustained efforts, and one of the tasks is “exploring the array of networks in a broadly comparative perspective” (1997: 48). In Provan and Lemaire’s recent work (2012: 638–648), this task, however, is still identified as one of the obvious areas where research is very much needed.

In line with the need for the diversified networking studies in a variety of settings, this chapter studies the networking of government employees in China and the implications of networking for decision making. Networking in this chapter is defined as the contacts initiated by individual government employees to contact the stakeholders both inside and outside the government. This focus on the networks of collaborating individuals is important because “the role of the individual in collaborations is receiving limited attention” in the current literature that mainly focuses on interorganizational collaboration (O’Leary, Choi, and Gerard 2012: S70–S83). In addition, given that most of the existing networking studies draw from the experiences of the United States and the United Kingdom, the comparative perspective in China is intriguing, which could inform us of what networks look like and how they work in a traditionally hierarchical setting where networking is just emerging. It depicts networking at its birth. Furthermore, the connection between networking and decision making is especially important in China as its government employees are beginning to take more factors and stakeholders into their consideration. This chapter starts with a descriptive look at both the networking pattern and the decision-making mechanism, respectively, and then examines the interaction between these two in China.

RESEARCH QUESTIONS

Research of this nature is inherently challenging. The political structure and reality in China, for a long time, made it almost impossible to take a peek at how government decisions are made. During the last decade, we began to see some research on this front in China, the overall number of studies, however, is rather few. A recent published book (Wang and Fan 2013), *The Chinese Model of Consensus Decision Making: A Case Study of Healthcare Reform* is thought to be the first book originating from China, making an in-depth study of government decision making. A survey in the literature found that the majority of the studies on this topic are about the decision making at China’s central government level, and in the areas of foreign policymaking and the formulation of its famous “five-year” national plan. The focus on decision making at subnational level is lacking. This is the first gap that this chapter intends to fill. Specifically, the interest of this research is knowing the factors important for decision making at the subnational level. The subnational experience is becoming increasingly important. According to a recent report (Lawrence and Martin 2013) of US Congressional Research Service, provincial

governments, albeit ultimately under the constraints of the central government, have increasing power arising from the governance structure that is in place.

A related question is: Who do government employees contact? And, how does the network of contacts play a role in decision making? The significance of interconnectedness is an important aspect of decision making in China because it is no secret that relationships (*GuangXi* in Chinese) matter in almost all aspects of life in China. Traditionally, the relationships in Chinese bureaucratic settings feature several distinctive characteristics. First, it is deemed a respectful thing to do, if the subordinate reports frequently to the immediate supervisor even on minor issues. Second, the personal relationship is inseparably tangled with professional relationship. It is likely that professional judgments yield to personal relationships. Third, networking with stakeholders outside the government, in particular, citizens, media and or nonprofit organizations, is historically not common. However, this close-knit networking is gradually challenged, which allows the research on networking possible, more interesting, and relevant. While the relational networks may be somewhat private in nature, the government decisions that are partly formed by these networks are public. Decision making in the public sector in essence is about policy making. The potential implications that the relational networks of government employees have on policy making and implementation are huge. Given the long tradition of concentrated power in decision making in China, the call, with increasing intensity, for “open government” and “participative decision making” becomes one of the most challenging reform agendas. Further improving decision making was deemed as one of important reform ideas at the third plenary session of the 18th central committee of the Chinese Communist Party during November 9–12, 2013 (Baidu 2013). Through examining the relationships and networking patterns of government employees, this chapter, without making a causal claim, attempts to gauge how networking relates to the importance of various factors in decision making. The finding could give us a peek into the possible implications of “open government” and “participative decision making” in a traditionally hierarchical society.

In summary, the research questions in this chapter are threefold:

1. What are the important factors for government decision making in China (subnational level)?
2. What are the networking patterns initiated by subnational government employees?

3. How do networking patterns relate to the important factors in government decision making in China?

DECISION MAKING AND NETWORKS

To lay the foundation for the discussion, a brief summary of the nature of decision making is first provided. Decision making has a variety of theories explaining it. The extent of rationality is an important concept in decision making. From the economics perspective, rational decision making means that people will choose and act based on their preferences in such a way that consistently maximizes the utility they receive. This model of decision making works best if the conditions are met, such as, clear goals, perfect information, defined preferences, and the unbounded ability to choose (Hausman and McPherson 2006). The strictness of these conditions gives rise to the limited application of this model and the recognition of an alternative “bounded rationality” model (Simon 1947). As Simon argued, although people intend to be rational, the cognitive limits, uncertainties, and time limits cause them to decide under conditions of bounded rationality. Incremental decision making (Lindblom 1959: 79–88) also recognizes the concept of “bounded rationality,” where the core of decision making only focuses on the increments to the existing circumstances, so that decision makers manage “being rational” and the decision making task is not overly daunting. Neither the rational model nor the incremental model, however, can be accepted without challenges. The rational-incremental mixed scanning method (Etzioni 1967: 385–392) was also proposed and the mix of rationalism and incrementalism depends upon the nature of decisions that will be made. Alternatively, others have primarily viewed decision making as a contingency model (Thompson 1967). That is, when decision makers cannot agree on the goals and/or lack well-developed technical knowledge of problem solving, they take on the strategy of more bargaining and political maneuvering, and more intuitive and judgmental decision making. In addition, highlighting the challenges of decision making in the policy setting, the “garbage can model” of public decision making (Kingdon 1995) suggests that policy decisions may develop in a less predictable fashion as various problems and solutions emerge from the “policy primeval soup” that is filled with politics. In short, the evolving understanding of decision making indicates that it is a process influenced by the characteristics of decisions and decision makers as well as the environments in which the decisions are made.

Indeed, the rising of network reflects the changes in decision making taking place in this era. Over time, the social problems that government decision makers face are more wicked and nettlesome than ever, which demands expanded knowledge base, collaboration, and shared responsibilities that go beyond the organizational boundaries. This, in turn, prompts government officials to work with people they may not have direct control over in the broader policy network. And, the policy environment through the development of information-sharing technology, the maturity of nongovernmental organizations, and other developments enables the benefits of forming networks.

While most of the literature focuses on interorganizational networks, this chapter studies relational networks among individuals. We posit that relational networks among different stakeholders are particularly important in the public sector because of the features of decision making in the public sector. The literature (Nutt 2005: 289–318; Hood 1991: 3–19) suggests that in the public sector decision makers compared with their counterparts in the private sector are expected more to seek out the views of people; collaboration is more important than competition; more time is required to balance user needs; more people are involved; clarity about the desirability of alternatives decreases; and the need for consensus increases. These features of public decision making call for effective networking in order to collaborate and seek consensus among groups of diverse or even competing stakeholders. To some extent, the public policy decision making is inherently situated in networks. In addition, the recent trend of calling for transparent and participative decision making in the public sector has made networking with stakeholders outside the government more prevalent.

Then, what do we know about the difference that networking makes to decision making? First and foremost is the makeup of the people who are involved in the decision making process. A central feature of networking is the diffusive interdependence among stakeholders that goes beyond formal superior–subordinator relationships. In his widely cited book, Moore (1997) categorized the types of relationships in terms of managing—upward, downward, and outward. The upward relationships focus on managing “renegotiated policy mandates” (Moore 1997: 17) with the superiors, while the downward relationships are about “reliable control” over the subordinators of “organizational operations” (17). The relatively new perspective of managing outward, however, branches out to include the wider stakeholders, whom the policymakers or managers may or may not have control over. For instance, some governments involve community

representatives, serving on the capital project selection committees. Although the addition of outward management does not appear to replace the hierarchical relations (Agranoff 2006: 56–65), this recognition of managing outward certainly adds new titles to the managers or administrators who manage the networks, such as “boundary spanner” (Belefski 2006: 143–144), “integrative leader” (Crosby and Bryson 2010: 211–230), to name a few. As a result, the makeup of the people influencing the decision making could be shaped directly by bringing more parties to the table and or indirectly through the network managers synthesizing the additional perspectives from networking outward.

The significance of the necessity and trend of networking goes beyond changing the makeup of people sitting around the decision making table; it changes the process as well as the outcome of policymaking. For instance, Meier and O’Toole (2003: 689–699) found that managerial networking improves policy outcomes in the educational setting. Implications of networks are manifested both through the organizational and individual network structures (Keast, Mandell, and Agranoff 2013), influencing knowledge management (Weber and Khademian 2008: 334–349), accountability (McGuire 2006: 33–43), government performance (Walker et al. 2010: 731–741), democratic values (O’Toole and Meier 2004: 681–693), managerial skill sets (O’Leary, Choi, and Gerard 2012: S70–S83), and the politics of service delivery (O’Toole, Meier, and Lu 2006). Clearly, the literature has developed significantly since O’Toole’s call (1997) to “take networks seriously.” However, most of the network theories are informed by Western experiences. The questions that this chapter seek to address is: What do the network activities look like in China? Would networking activities put a dent in a highly hierarchical decision making structure?

METHODOLOGY

The data for this research was drawn from a survey administered to the students in an executive Masters in Public Administration (MPA) program. The students in the course are mid-to-upper level government employees from China, who were temporarily off their regular posts to acquire a one-year degree by completing an intensive MPA program outside of China. The survey instrument was pretested with Chinese government officials to make sure that the languages are understandable and the questions clear. Then, the survey was administered to all the students in the two classes, of which the author of

this chapter was the instructor. To ensure that the participation in the survey was voluntary, the instructor left the classroom when the survey was administered. The survey was neither tracked nor identified in the hope that anonymity improves the response rate and invites more honest responses than otherwise. In total, 87 students were surveyed, out of which 71 surveys were returned, registering a response rate of 81 percent. One note of caution is that there is no sure way to assess how well this group of students represents the general population. As a result, the findings here may or may not be generalizable. Nevertheless, the general characterizations of this group of students are that they tend to be younger, considered as the “rising stars” in Chinese bureaucratic ranks, and interested in learning. In the survey, 73 percent of the candidates were male; the average age within the group is late thirties; the average tenure in their current posts is about seven years while the average tenure in the government is about 15 years; and all participants have either undergraduate (48 percent) or graduate degrees (52 percent).

The survey instrument itself contains, among others, blocks of questions on the networking activities and their decision-making factors. The unique structure of the survey allows the networking activities to be measured in a quantifiable way, that is, how often government officials voluntarily initiate contacts with an array of the key partners. In order to further organize the networking pattern, the categorization of networking upward, downward, and outward developed by Moore was employed in this research. Specifically,

- Networking upward = initiating contacts with superiors,
- Networking downward = initiating contacts with subordinates,
- Networking outward = initiating contacts with colleagues at the same rank within the organization, professional associations, state-owned enterprises, residents, private companies, nonprofit organizations, and media.

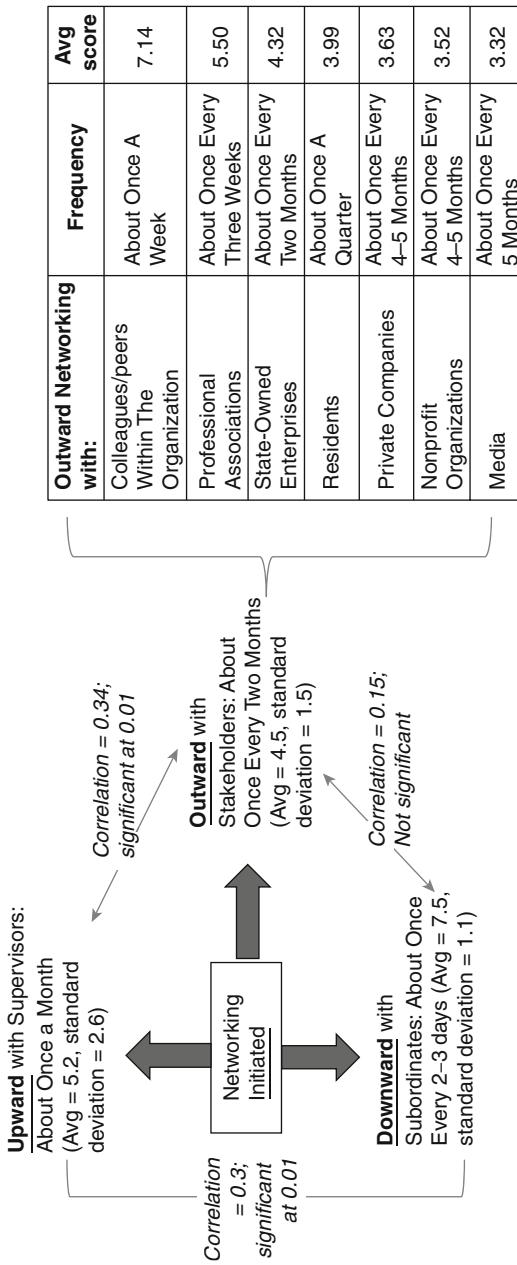
The hallmark that distinguishes upward or downward networking from outward networking lies in the fact that government employees tend to have little direct control over the stakeholders in the outward networking group. The peers at the same rank within the organizations are included in the outward networking, because unlike subordinates, government employees tend to have little control over each other at the same bureaucratic rank. A note of caution is that communications and contacts taking place both inside and outside a government entity, formal and informal, or oral and written are more

complex than the three-dimension categorization. This simplified categorization should not be interpreted as suggesting that only through these activities do government employees network or communicate. Other communication vehicles (such as executive orders) may become part of organizational routines that do not require an explicit effort by the government employees to uphold. Nevertheless, the networking activities as measured in this research reflect an important portion of the overall web of networking—that is networking activities that government employees do maintain. Another reason for adopting the three-dimensional networking categorization is that it is concise and illustrative. A set of correlation tests were performed on all three dimensions of the networking activities to see the relationships among the three. Furthermore, what should be stressed is that in order to distinguish active networking (i.e., actively reach out to partners) from passive networking (i.e., waiting to be contacted), this research specifically asks questions about active networking—the networking activities initiated by government employees. By doing so, the measurement could more accurately reflect the nature of networking that this chapter focuses on. In addition, the decision-making factors are ranked. The survey respondents were asked to assess the importance of each decision-making factor using a five-point Likert scale (1 = not important; and 5 = very important).

FINDINGS

Table 9.1 reports the networking activities initiated by government employees. First, we notice that three different dimensions of networking (upward, downward, and outward) register different frequencies of contacts and the differences among them are statistically significant at the 0.01 level. Chinese government employees network “downward” with the subordinates at the frequency of about once every two to three days, the highest frequency among the three dimensions while network “upward” about once a month. Given the systemwide tight control in the Chinese system, the intensity of downward networking is expected. This also confirms the notion that higher downward networking reflects tighter control over organizational operation (Moore 1997). The intensity of upward networking, however, is less than what is expected. The traditional Chinese official culture would emphasize frequent reporting to superiors as a way to show respect to leadership and as a way to avoid decision making or accountability. However, the findings here do not seem to support heavy upward networking. In addition, there is a wide range of

Table 9.1 Networking pattern initiated by public employees



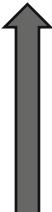
frequency associated with upward networking (Standard Deviation [SD] = 2.57), compared with downward networking, which is more consistently frequent (SD = 1.1). It seems to suggest that upward networking may be an individual choice. Further analysis shows that there are a significant number of the survey respondents (24 percent) who claimed to never initiate contacts with the supervisors. On the other hand, more than 40 percent of the respondents reported initiating contacts with supervisors either on a daily basis (17 percent of the respondents) or once a week (25 percent), respectively. Clearly, individual government employees are more selective in their actions of initiating contacts with the supervisors than with subordinates. This finding squares well with the old saying in the Chinese culture, that is, “being with an authority resembles being with a tiger,” implying that you never know whether good or bad things might come from connecting with authorities—the tiger (the authority) may bite you or enable you. This concern could result in deliberation and carefulness before initiating contacts with the supervisors, which in turn explains the wide range of upward networking frequency. Indeed, initiating contacts with supervisors (upward) is more deliberate and circumstantial than initiating contacts with subordinates (downward).

The analysis of outward networking observes less connectedness, compared with upward or downward networking. On average, government employees contact outward once every two months. The most frequent point of contact is their peers within the organizations (once a week), and the least frequent point of contact is the media (once every five months). If we focus on the stakeholders outside the organizations (excluding the peers within the organizations), the average frequency of outward networking reduces to once every three months from every two months. Clearly, government employees work under a primarily close-knit organizational circuit with sparse connections with the environment outside the organizations. Several factors might explain this finding, including the early developmental stage of outside stakeholders and the forceful role of the government in policymaking in China currently. A welcome trend is that residents are part of the networking web (once every three months). Among the stakeholders, the survey respondents are least likely to contact the media. The finding agrees well with the general carefulness that Chinese governments exhibit in their dealing with media. The carefulness could be intensified among the survey respondents because these potential “rising stars” in the Chinese governance structure, who in this case were given the opportunity of obtaining an executive public administration degree overseas, may have more to lose if they are not careful.

Although the three components of the networking are distinctive, they, however, are not independent from each other. One important finding is that although the conventional bureaucratic relationships as reflected in upward and outward networking are significant in the Chinese context, it does not seem to crowd out the significance of outward networking. In fact, higher level of upward networking is positively related with a higher level of outward (correlation coefficient = 0.34) and downward (correlation coefficient = 0.3) networking, and both correlations are statically significant at the 0.01 level. In other words, government employees who more frequently initiate contacts with their supervisors also more frequently initiate contacts with outside stakeholders and subordinates. What does this say about the rise of networking in China? The nature of outward networking in Chinese context seems to be more of auxiliary nature than a necessity. It is an auxiliary to the existing bureaucratic relations that are deeply rooted, and more due to individual choices than necessity. Comparatively speaking, Western literature tends to suggest the rise of networking in the Western context is due to necessity. That is, the social problems are “wicked,” whose solutions extend beyond organizational boundaries, and as a result the governance structure is expanding its networking through interconnections—where people need to reach out to various stakeholders who are not part of the typical bureaucratic relationships. This may not be a reason for or the necessary condition for the rise of networking in China. Instead, the permission or even encouragement from the top to network externally could be the force that makes it possible.

The analysis of networking presents three distinctive yet interconnected networking dimensions among government employees. Then, what impact does networking have on decision making in the Chinese context? In order to address this question, we first need to characterize decision making. This chapter describes decision making through the various factors ranked by survey respondents in terms of their importance to the decision making. What we observe in table 9.2 is an overwhelming pattern that is consistent with what a centralized decision system would look like. Although the overall pattern is expected, it is still surprising to see how neatly similar variables cluster together, forming the tiers according to their importance to decision making. The first tier includes three of the most important factors in the decision-making process of government employees—opinions of organizational head, opinions of direct supervisors, and target set by higher levels of government. The common theme is clearly “following the directives” from the top. The second tier

Table 9.2 Factors important for decision making

Importance of the following Factors in Decision Making			Obs	Mean (1=not important 5=very important)	Std. Dev.	Cluster Analysis (Groups)		
						1	2	3
 <i>More Important</i>	<i>Tier 1: "Following the Directives"</i>	Opinions of organizational head	71	4.49	0.71	4.7	4.4	3.3
		Opinions of direct supervisors	71	4.35	0.72	4.6	4.1	3.3
		Target set by higher levels of government	71	4.24	0.89	4.5	4.0	3.4
	<i>Tier 2: "Be Rational"</i>	Clarity of purposes in decisions	71	4.21	0.77	4.5	4.0	2.7
		Adequacy of resources to implement decisions	71	4.13	0.92	4.5	3.8	3.0
		Sufficiency of information for making decisions	71	4.06	0.81	4.4	3.8	2.5
		Right timing for making decisions	70	4.01	0.75	4.4	3.8	2.5
	<i>Tier 3: "Be Inclusive"</i>	Opinions of citizens	70	3.89	0.91	4.2	3.4	3.6
		Job performance evaluation and promotion requirements	71	3.86	1.00	4.5	3.4	1.5
		Opinions of professionals	71	3.83	0.77	4.1	3.6	2.6
		Media coverage	71	3.72	0.86	4.1	3.4	2.8
		Opinions of People's Congress	71	3.69	0.95	4.1	3.3	2.2
	<i>Tier 4: Others</i>	Personnel changes	71	3.68	1.16	4.4	3.1	1.5
		Opinions of subordinates	71	3.27	0.84	3.4	3.2	2.8
		Decisions of similar issues in the history	71	3.04	0.92	3.2	3.0	2.3
 <i>Less Important</i>								

includes the factors that suggest rational considerations surrounding decision making, including the clarity of purpose in decisions, adequacy of resources to implement the decisions, sufficiency of information as well as the right timing for making decisions. It is in the third tier where the opinions of broader stakeholders play a role in decision making. In other words, this tier represents the inclusiveness of the different voices in decision making, including opinions of citizens, job performance evaluation, professionals, the media, and people's congress. Last, but not the least are the influences of personnel changes, opinions of subordinates, and the decisions taken with regard to similar issues in the past. Ironically, the opinions of subordinates was ranked the second to the last in terms of its important to decision making, although the most frequent networking mode in Chinese context is downward networking with subordinates. This seems to indicate that the bottom-up feedback loop is not valued in a hierarchical structure.

In addition, the survey finds that on an average the respondents rank all factors above three (somewhat important) on a scale of 1 to 5 in terms of their importance to decision making. Clearly, they consider a wide range of factors in their decision making. This is not

a surprising finding in the sense that the author's interactions with the survey respondents throughout the course period indicate that the government employees are prudent. For example, they tended to be rather modest, prudent, and comprehensive in their responses to the questions in the classroom. In addition, judging by the standard deviation, the decision patterns are much more uniform than the networking patterns. Furthermore, the four tiers are moderately positively correlated with each other, and all correlations are statistically significant. In particular, one may assume that those who ranked directives from the top as important in their decision making in China may not rank inclusiveness of voices of other stakeholders as important. The findings, however, suggest the contrary. Those who emphasize "following the directives" also value participative as well as rational decision-making elements. Agranoff (2006, 62) once acknowledged "[n]etworks alter the boundaries of the state only in the most marginal ways; they do not appear to be replacing public bureaucracies in any way." This research can add that in a highly hierarchical structure, steadiness in bureaucratic relations is the basis for extended outward networking and networks are likely to be shaped by public bureaucracies. Taken together, the decision-making mechanism of the Chinese subnational governments, in the order of importance, is driven by the top-down style, modestly grounded in rationalism, and slightly influenced by various voices in the policy environment.

To further understand the patterns in the factors important for decision making, a cluster analysis was performed. As an exploratory data analysis tool, cluster analysis in this study organizes the cases into different groups based on the relationships of various decision-making factors across the cases. The analysis was run several times to test various assumptions of the number of groups generated. As reported in table 9.2, one primary pattern that appeared was the cases were grouped primarily by the intensity of importance. That is, group 1—the group of the most integrative decision-making style considering as many factors as important as possible—consists of the cases that render highest averages for all decision-making factors; and group 3 (least integrative decision making) lowest averages.

Then, does network formation in China make a difference to decision making? Incorporating the three groups of decision-making mechanisms developed earlier, a logit model was applied to examine whether networking activities make a difference. The findings in table 9.3 indicate that the only dimension of networking that makes a difference to decision making is outward networking, a relationship that is statistically significant. While the logit model fits the nature of

the dependent variables, it is hard to interpret the findings. To aid the interpretation, table 9.4 reports the discrete changes in probability of being in a group when the independent variables change from one value to another. In line with the finding in table 9.3, table 9.4 shows that traditional upward and downward networking activities have little or no impact on decision making, while outward networking has the most impact. Specifically, for instance, holding all other variables

Table 9.3 Impact of networking on decision making*—logit model

<i>Dependent variable-groups</i>	<i>Variables</i>	<i>Coef.</i>	<i>Std. Deviation</i>	<i>z</i>
Group 1, ranking all factors as important	Outward	0.6	0.2	0.01
	Downward	0.0	0.3	0.97
	Upward	-0.1	0.1	0.65
Group 2			(Base)	Outcome
Group 3, ranking most factors as not important	Outward	1.3	0.5	0.01
	Downward	-0.3	0.4	0.46
	Upward	-0.4	0.2	0.11
LR chi2(6)	13.45			
Prob>chi2	0.04			
Pseudo R2	0.12			

*The coefficients for constants are not reported.

Table 9.4 Impact of networking on decision making*—interpretation

<i>Change in Networking</i>	<i>Change in probability of being in each group</i>			
	<i>AngChg</i>	<i>1</i>	<i>2</i>	<i>3</i>
<i>Outward networking</i>				
Min->Max	0.5	0.2	-0.7	0.5
One SD change	0.1	0.2	-0.2	0.1
<i>Upward networking</i>				
Min->Max	0.1	0.0	0.1	-0.2
One SD change	0.0	0.0	0.0	0.0
<i>Downward networking</i>				
Min->Max	0.1	0.1	0.1	-0.2
One SD change	0.0	0.0	0.0	0.0
Probability at mean		0.6	0.4	0.0

* The coefficients for constants are not reported here.

at their means, the effect of outward networking is largest on the probability of being in group 2, where the expected change arising from outward networking changing from minimum to maximum is negative 0.7. In other words, higher outward networking decreases the probability of being in group 2 (ranking most factors as somewhat important). At the same time, higher outward networking increases the probability of being in groups 1 and 3, which consists of the cases that render highest averages and lowest averages, respectively, of the importance of decision-making factors. In short, increased outward networking seems to lift people out of the area of “golden mean”—the desirable middle between two extremes—and put them primarily in highly integrative decision-making mode (groups 1–34 cases) or a few cases (six cases) in the least integrative mode. As a result, the government employees in group 1 seem to serve as the “integrative leader” who manages various decisional factors.

Since group 1 (highly integrative decision making group) consists of the cases that ranked high in all the decisional factors, including those reflecting the inclusiveness of the voices of stakeholders, and outward networking is a core of network governance, we are particularly interested in knowing how outward networking relates to group 1. Figure 9.1 shows that the relationship is not linear—the probability of being in group 1 (highly integrative decision making group) peaked when outward networking is at the level of once every two weeks (value = 6), and then trended down. It seems that higher

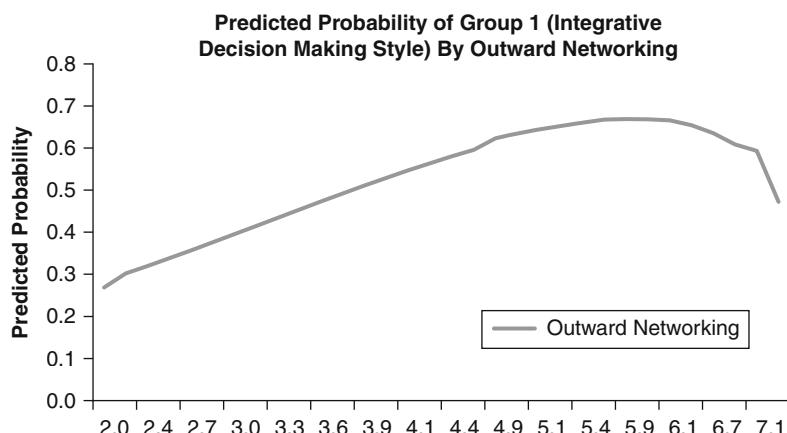


Figure 9.1 The nonlinear relationship between outward networking and the probability of being in group 1 (integrative decision making style)

outward networking activities heighten the importance of various decision-making factors and may intensify the competition among the factors. As outward networking continues to climb beyond that tipping point, an in-depth look suggests that these respondents can no longer emphasize all the factors, instead they paid slightly more attention to tier 1 decision-making factors (following the directives), tier 3 (be inclusive), and less attention to tier 2 (be rational).

CONCLUSION

This chapter examined two important yet murky aspects of Chinese governments: networking activities and public decision making. Although the literature on networking and collaborative management at the organizational level (for instance, Jing and Chen 2012: 405–428) have recently grown in China, the literature on how subnational Chinese governments make public decisions is thin and their networking activities at the individual level are little known. Using a recent survey of Chinese government employees, this chapter provided a first of its kind and detailed look at both the networking activities and public decision making of subnational governments in China. In addition, extending the literature on the global awareness of network governance in the public sector, this research attempts to depict how these two aspects interact in China; in other words, how do networking activities, in particular outward networking with stakeholders in the environment, play a role in decision-making mechanism within a traditionally hierarchical governance structure.

Focusing on the networking initiated by the government employees, the finding demonstrates that the traditional upward and downward networking dominates the network of government employees. Outward networking is neither a frequent event nor integrated into the organizational routine. In China, downward networking is a necessity, upward networking is a choice, and outward networking is an auxiliary. Outward networking only inches forward in a heavily hierarchical governance structure. This finding, however, should not be interpreted as the lack of willingness on the part of government employees to conduct outward networking. Instead, the research points out that the social structure in which networking takes place both enables and limits the occurrence and role of networking. Many of the outside stakeholders in public policymaking commonly discussed in Western literature, such as nonprofit organizations, citizens, and professional associations, are in their infancy in China, which in turn limits the opportunities of outward networking. More importantly, the least developed networking

(i.e., outward) registers the most impact on decision making. It seems to suggest that even a marginal degree of outward networking could start making a dent on the highly bureaucratic structure. Specifically, outward networking pushes the decision-making process to value comprehensive factors including external voices outside the government and be more integrative than otherwise.

Although the call for more participative decision making has gained renewed interest at the third plenary session of the 18th central committee of the Chinese Communist Party during November 9–12, 2013, this research demonstrates that it is still a long way to go. The decision-making mechanism in subnational Chinese governments is fairly uniformed, rigid, and top-down style. As a result, the range of networking activities, although more diverse than the decision-making pattern, only impacts decision making at the margin. What is more interesting is the high correlation between the importance of decision-making factors that reflects “following the directives from the top” and that of those factors that speak about the “inclusiveness of stakeholder voices.” Clearly, outward networking in China, while most promising in refreshing the old decision model, is heavily influenced by the traditional top-down governance. It suggests that in China, the impact of outward networking is most likely to be realized among government employees who know how to follow and manage directives from the top.

This research indicates that a key issue in studying network governance within a traditional hierarchical structure is to pay close attention to the relationship between the upward and outward networking. It would be erroneous to study outward networking discretely in this context. Instead, future research on this topic should continue taking networking as a holistic concept—upward, downward, and outward—and examine how they interact. The pivotal point of the three-dimensional networks (upward, downward, and outward) in hierarchical structures is not outward networking; it is the upward networking that both enables and limits the extent and role of outward networking.

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CONTRIBUTORS

Chang, Yan-yi, Ph.D., is an assistant professor at Department of Public Administration, Chung Hua University, Taiwan. He received a PhD in Political Science at National Chung Cheng University in Taiwan in 2011. His main research interests are China climate change governance, local government and public policy, mixed methods research, public management, and qualitative research software. He can be reached at cyy@chu.edu.tw.

Chen, Bin, is an associate professor in the School of Public Affairs, Baruch College of the City University of New York and a senior fellow in the Institute for Advanced Study, Tongji University. His research portfolio includes cross-sectoral governance and interorganizational collaboration in public policy implementation, government–nonprofit relations, inter- and intraorganizational network analysis, and comparative public administration and public policy. He received his Ph.D. in public administration from the University of Southern California, M.Sc. in public administration and public policy from the London School of Economics, and B.A. in English from the Shanghai International Studies University. He can be reached at bin.chen@baruch.cuny.edu.

Jing, Yijia, is a professor in Public Administration at the School of International Relations and Public Affairs, Fudan University. He is editor-in-chief of *Fudan Public Administration Review*, associate editor of *Public Administration Review*, and co-editor of *International Public Management Journal*. He is the founding co-editor of Palgrave book series, *Governing China in the 21 Century*. He serves as a vice president of International Research Society for Public Management and associate director of foreign affairs of Fudan University. He can be reached at jingyj@fudan.edu.cn.

Kuhn, Berthold M. is currently an adjunct professor and Ph.D. supervisor at the Freie Universität Berlin, Otto Suhr Institute of Political Science. He also works as senior international cooperation consultant

with GFA Consulting Group, Hamburg, mainly for EU funded projects in Asia. He was previously a professor at the School of Public Affairs of Xiamen University and the School of Public Policy and Management of Tsinghua University. His publications include books and papers on international and development cooperation, collaborative governance, and climate protection policies and participation.

Kuo, Ming-feng, PhD, is a distinguished research fellow at the School of Public Administration, Sichuan University, China. His research interests include public management, performance evaluation, policy analysis, and applied econometrics. His research has appeared in journals such as *Administration & Society*, *Taiwanese Journal of Political Science*, *Journal of Social Sciences and Philosophy*, *Chinese Political Science Review*, *Journal of Civil Service*, and *Wenti Yu Yanjiu*. He can be reached at mingfeng.kuo@gmail.com.

Li, Tzung-Shiun, Ph.D., is a professor at the Department of Administrative Management, Central Police University, Taiwan. He is now a visiting scholar, Graduate School of Public and International Affairs and Center of Disaster Management, University of Pittsburgh. He also serves as Chairman of the Chinese Association of National Competitiveness and standing director of Neihu Safety and Health Collaborative Association in Taiwan. His research interests are crisis management and risk governance, contracting out government services, leadership, and public philosophy. His research has appeared in *Public Administration Review*, *Public Administration Quarterly*, and other journals published in Taiwan. He can be reached at una231@mail.cpu.edu.tw.

Liu, Helen K. is an assistant professor at the Department of Politics and Public Administration at the University of Hong Kong. She received a Ph.D. in Public Affairs from Indiana University at Bloomington in 2009. She has research interests in the areas of inter-organizational networks and nonprofit management. Her research on nonprofit management explores current capacity, challenges, and incorporation status of local nonprofit organizations. She was awarded a fellowship as an emerging scholar at the Urban Institute in Washington, DC, and selected as a summer fellow at the RGK Center on Philanthropy in University of Texas at Austin. She has taught courses in nonprofit management and fundamentals in public administration at the University of Hong Kong. She can be reached at helenliu4@gmail.com.

Lu, Yi Elaine, Ph.D., is a tenured associate professor in the Department of Public Management at John Jay College City University of New York (CUNY). Her primary research interests are performance budgeting and financial management. She regularly publishes among various journals and also has served communities in various capacities, including but not limited to: serving as an adviser for Government Finance Officers Association (GFOA)'s project on performance management and measurement in government; member of the Consolidation Committee at the Chamber of Commerce in Broome County, New York; and the faculty liaison of the China project funded by the Open Society Foundation.

Ma, Jie, is an associate professor in the School of Management and Economics of University of Electronic Science and Technology of China. Her research and teaching interests focus on regional economics and policy analysis, water resources governance, network governance. Jie Ma received a Ph.D. in management, masters in economics, and B.A. in management from Southwest Jiaotong University. She did her research in the area of network governance for water resources in University of Arizona as a visiting scholar from August 2011 to August 2012. She has been principal investigator on two National Science Foundation research grants as well as grant awards from local governments. Jie Ma has published over twenty refereed articles. Her work appears in the leading scholarly journals of political science, public administration in the *Journal of Public Management*, *China Soft Science*, and *Fudan Public Administration Review*. She can be reached at majie2436@126.com.

Schlæger, Jesper, is an associate professor in the School of Public Administration at Sichuan University. He is also currently postdoctoral research fellow in the Centre for East and South-East Asian Studies at Lund University, Sweden.

Suo, Liming, is a professor in the School of Political Science and Public Administration of University of Electronic Science and Technology of China. He got a Ph.D. from Southwest Jiaotong University School of Economics and Management, used to be a visiting scholar, in Askew School of Public Administration and Policy, Florida State University, with Professor Feiock during 2011–2012. Liming Suo's research and teaching interests focus on interlocal collaboration and network governance in institutional analysis, inter-government relations, and environmental governance network analysis. He has been principal investigator on two National Science Foundation research grants

as well as grant awards from local governments. Professor Liming Suo has published two books and over 30 refereed articles. His work appears in the leading scholarly journals of political science, public administration in the *Journal of Public Management*, *Chinese Public Administration*, and *Social Science Research*. He can be reached at dinastysuo@126.com.

Wang, Chun-yuan, Ph.D., is an associate professor at Department of Administration Police, Central Police University, Taiwan. He also serves as the secretary-general at Chinese Association of National Competitiveness in Taiwan. His research interests are crisis management, strategic planning and management, and policy analysis. His research has appeared in *Administration & Society*, *Public Management Review*, *Public Administration Quarterly*, *Review of Public and Personnel Administration*, and other journals published in Taiwan. He can be reached at g885422@seed.net.tw.

Wu, Yin, Ph.D., is a Ph.D. candidate in Public Finance and Public Policy, School of public Administration and Policy, Renmin University of China. She can be reached at yinwuruc@gmail.com.

Xu, GuangJian, is the executive vice dean, professor, and doctoral advisor in the School of Public Administration and Policy, Renmin University of China. His research interests are public finance, government regulation economics, macroeconomic theory and policy. He received his Ph.D. in Economics from Renmin University of China. He can be reached at xgj@ruc.edu.cn.

Yang, Beilei is an associate professor in the Department of Public Administration, School of Economics and Management, Tongji University of Shanghai. Her research and teaching interests focus on the urban community governance, collaboration in public service. Professor Yang published articles in *Chinese Public Administration*, *Marxism and Reality*, *Tongji University Journal*, etc. She published a monograph of Chinese urban community governance. She received her Ph.D. in Tongji University, M.Sc. and B.A. in Shanghai Normal University. She can be reached at yblei@vip.163.com.

Yang, Lihua is professor of the School of Public Administration and director of the Workshop for Environmental Governance and Sustainability Science, Beihang University. He graduated from Peking University and Indiana University with two bachelor degrees and two master's degrees. He got his doctorate in the School of Public Affairs, Arizona State University. His research interests include

public administration, research methods, environmental governance and policy, and institutional economics. He has published dozens of English and Chinese articles in journals such as *Environmental Science and Policy*, *Ecological Economics*, *Journal of Environmental Management*, *Environmental Management*, *Journal of Policy Analysis and Management*, *Government Information Quarterly*, *Management and Organization Review*, and *Environmental Policy and Governance*. His four books have been published by the Peking University Press (2005, 2008, 2015, and 2015) and two books by the China Economy Press (2004, 2014).

Zou, Shanshan is an assistant professor in the School of Economics and Management, Tongji University of Shanghai. Her research and teaching interests focus on the government–nonprofit relations, urban governance and public policy. Professor Zou published in the journal of Marxism and Reality, Zhejiang Academic Journal, Jiangsu Social Sciences etc. She is also the coauthor of the book *Urban Governance: Chinese Perspective & Practice*. She received her Ph.D., M.Sc. and B.A. in public administration from the Fudan University. She can be reached at zoushanshan@163.com.

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