

SUMMARY AND LOOKING AHEAD

Kevin Z. Chen and Claire Hsu

This book focuses on how China's disaster management system—which is dedicated to the prevention, relief, and reconstruction efforts, carried out by the entire society, associated with the occurrence of natural hazards—performed during the Wenchuan earthquake. After briefly describing in Chapter 1 the earthquake's effects, the government's response, the evolution of China's disaster management system, and the increasing attention paid by China's government to disaster management in recent years, the remainder of the book focuses on key policy innovations throughout the disaster management process and system. It also covers the problems encountered, such as inadequate preparedness, misuse of funds, preference for short-term infrastructure projects over other projects that could better alleviate poverty, and inefficient allocation of funds. Below we summarize the key findings of the analysis of the relief and reconstruction efforts.

In Chapter 2, the authors use a unique dataset to examine the effects of the 2008 Sichuan earthquake on income and expenditure levels of rural households. They examine what role, if any, government aid played in recovery. In response to the disaster, the government provided temporary living subsidies to families and, to help rebuild homes, a mix of aid and bank loans for home reconstruction. The authors find that living subsidies were adequate to offset losses in annual income, but the mix of aid and bank loans were not sufficient to cover all reconstruction costs. As of 2009, consumption had stabilized, mainly because of the living subsidies provided by the government, and household income or consumption inequality had not changed despite the heterogeneous effects of the earthquake on households.

In Chapter 3, the author describes his experience coordinating the pairwise aid policy. First, he reviews the multiple challenges for disaster relief presented by the Wenchuan earthquake. Next, he describes the prohibitive administrative and logistical constraints that led to the exploration of the pairwise province-to-county aid model. He then explains the general design of the model and its outputs. Finally, he briefly outlines future challenges.

In Chapter 5, the authors examine the multidimensionality of poverty and its relationship with disaster management. First, they explain the terminology of core concepts, including disaster, disaster risk, and disaster risk management; poverty and poverty reduction; and vulnerability among the poor. Next, they elaborate on the relationships between disaster and poverty and between disaster risk management and poverty reduction in reference to the Wenchuan earthquake. Last, they discuss the importance of continuing to integrate disaster management and poverty reduction strategies and the modalities and policy recommendations for accomplishing this integration.

Looking Ahead

This book identifies and examines key disaster management policy innovations, ranging from the pair-wise aid policy, increased cooperation with NGOs, and the integration of poverty reduction and disaster management. Additional research on China's policy learning following the Wenchuan earthquake, such as Birkland and Warnement (2014), notes that China exhibited clear problem solving and learning behaviors in the wake of the 2008 Wenchuan earthquake because of institutional factors such as its technical, organizational, and economic strength.

As a result of this adaptive behavior, our analysis indicates that a number of policy trends emerged across the many dimensions of China's disaster management efforts following the devastation of the Wenchuan earthquake, including increased emphasis on disaster prevention and mitigation, partnerships, and poverty reduction. As noted above, diffusing disaster management efforts—both over time and across the policy environment so as to include a greater number of agencies and actors—as a means of reorganizing China's hierarchical social and governance structure serves as a unifying concept for the policy innovations discussed in this report. In the future, diffusion and the other policy trends will continue to redefine the development of China's disaster management. Below, we discuss a number of key conclusions and insights about the larger and longer-term impacts of these trends.

Increasing international emphasis has been placed on the role of prevention in disaster management (Sanghi et al. 2010). China's own preventive shift, as can be seen in its post-2008 focus on building code improvement and enforcement, has already effectively prevented building collapse and damage in subsequent earthquakes (Associated Press 2013). In addition, some researchers promote the supplemental adoption of nonstructural mitigation strategies, such as enhancing community resilience through greater

community involvement in responding to disasters (as promoted in Chapter 4 and Chapter 5). First responders are often members of the affected communities, if not survivors themselves.

However, a number of remaining challenges face China's community-based disaster management prevention efforts. These challenges include boosting low participation by community residents; developing community-based disaster management (CBDM) organizations and coordinating mechanisms, refining disaster risk assessment methods, promoting NGO development, and spreading safety-oriented ideas and values.

Increasing attention has been paid internationally to innovative cross-sector partnerships for disaster management formed through multilateral frameworks and initiatives. Examples of such partnerships include the United Nations Development Programme (UNDP) Public-Private Partnerships for Service Delivery, which was designed to examine and promote the local provision of basic services to the poor by companies and NGOs, and the World Bank Institute's Public-Private Partnerships in Infrastructure program, which is oriented to equipping and encouraging public officials to undertake cross-sector partnerships.

This global trend toward cross-sector partnerships has also been observed in China's recent experience following the Wenchuan earthquake. China's post-Wenchuan enthusiasm for innovative partnerships both within government (between provinces and counties as discussed in Chapter 3, and between government agencies as described in Chapter 1) and between government and charities or society at large (as discussed in Chapter 4), has done and will continue to do much to improve the nation's coping capacity.

The future of some of these partnerships has been called into question. For example, although the formal identification of NGOs as key partners in the response and reconstruction efforts following the 2008 Wenchuan earthquake promoted a historic level of civil society engagement in relief efforts, the unsustainability of this engagement within the region has been noted by Tsinghua University's Professor Guosheng Deng. Professor Deng's research revealed that the number of NGOs active in the region decreased from 300 to 50 between 2008 and 2009, and the number of volunteers shrank from 3 million to 50,000 (Ramzy 2009). Ultimately, he suggests that the emergence of China's civil society may take longer than was hoped.

Increasing pressure has been put on policymakers to reduce regulatory hurdles that currently stymie NGO and charitable organization development and growth (Shieh and Deng 2011). Although recent NGO corruption scandals have heightened public skepticism toward charities and disaster relief

(Yu 2013), subsequent disasters have nonetheless led the government to allow more NGOs to officially participate in fund-raising and disaster relief efforts (Huang 2013).

Another growing trend in international disaster management is the integration of disaster reduction and poverty alleviation efforts, in light of the growing awareness that people with different conditions have different disaster recovery periods and requirements and that this is especially true for poverty-stricken populations (World Conference on Natural Disaster Reduction Yokohama 1994; Wisner et al. 2004). As discussed in Chapter 5, China also sought to blend risk and vulnerability reduction, disaster mitigation, and poverty alleviation in its short-term recovery program following the Wenchuan earthquake (Dunford and Li 2011). In particular, the government adjusted the existing poverty alleviation policies and formulated a Leading Group Office of Poverty Alleviation and Development earthquake reconstruction master plan specifically targeting China's 4,834 official poverty villages.

Unfortunately, translating policy into practice involved confronting several obstacles, such as the shortsightedness of the integration (Dunford and Li 2011), and the task of integrating these policy goals remains relatively recent, with much yet to be done and many knowledge gaps to be filled (Huang and Li 2013). In the future, the integration of poverty reduction and disaster management could involve several measures highlighted in Chapters 4 and 5, such as natural disaster monitoring and early warning, risk management, civil engineering measures, community disaster reduction, emergency response, recovery and reconstruction, technology empowerment, and social mobilization (Jiang 2013).

The improvement of disaster prevention and mitigation at the community level is key to many of these poverty-oriented disaster management recommendations. However, the government should also focus on the development of policies specifically dedicated to mitigating the income shocks induced by catastrophes (which exceed household coping ability), such as expanding and improving social safety net coverage and increasing the availability of agricultural insurance (Jin et al. 2011). In addition, further study of the Dutch-disease effects of disaster aid, as measured in terms of income and employment (indicated by the preliminary findings of Bulte, Xu, and Zhang 2013), as well as of households' income-smoothing behavior (as explored by Jin et al. 2011), would support the development of income mobility and reduce rural inequality.

China has contributed to the global policy discourse through its response to the 2008 earthquake. Our aim is that these lessons from the earthquake response facilitate the continued development of not only China's own disaster management capacity but also that of other countries. In particular, the concepts of diffusing disaster management efforts, of leveraging external resources, and of coordinating effectively with actors on multiple levels and across sectors offer great hope for improving resilience against natural disaster.

