

Exploring the administrative mechanism of China's Paired Assistance to Disaster Affected Areas programme

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The Paired Assistance to Disaster Affected Areas (PADAA) programme is a mutual aid initiative with Chinese characteristics, which speeded up the process of restoring and reconstructing regions affected by the Wenchuan earthquake on 12 May 2008.¹ The PADAA is an efficient instrument for catastrophe recovery, yet it remains a mysterious mechanism to many members of disaster management communities. This paper aims to lift the veil on it by assessing its origins and evolution. It draws on the multi-level moderated competition model to explain how the PADAA functions within the Chinese administrative system. The country's top-down political system allows the central authority to mandate provincial and local governments from more economically developed regions to assist devastated areas with post-disaster reconstruction. The practices of local accountability complement vertical control by giving leaders from donor regions strong incentives to accomplish assigned reconstruction tasks, resulting in intense competition between them.

Keywords: catastrophe recovery, China, multi-level moderated competition, paired assistance, vertical control, Wenchuan earthquake

Introduction

The twenty-first century has witnessed an increasing number of 'mega crises', which have had catastrophic impacts on human societies and have challenged dominant locally-centred disaster response and recovery approaches. Mega crises cause a huge amount of damage to the critical infrastructure on which economies and societies depend (Organisation for Economic Co-operation and Development, 2003; Lomborg, 2004; Posner, 2004; Helsloot et al., 2012; Lu and Xue, 2016). Local governments and organisations in some countries are not always capable of restoration and recovery after such an event, such as Indonesia and Sri Lanka following the Indian Ocean earthquake and tsunami on 26 December 2004, and New Orleans, Louisiana, United States, in the wake of Hurricane Katrina in August 2005 (Gordon, 2007; Robinson and Jarvie, 2008).

By contrast, China has developed a mutual aid policy programme for recovery from mega crises known as Paired Assistance to Disaster Affected Areas (PADAA).

The PADAA demonstrated its efficiency particularly after the Wenchuan earthquake in Sichuan Province, southwest China, on 12 May 2008.² During the recovery phase, 19 provinces (or municipalities directly under the central government) in more prosperous eastern and central China were mandated to assist Sichuan Province. These provinces provided CNY 84.38 billion (or USD 13.06 billion) for impacted regions, contributing 8.3 per cent of the funding planned by the central government for 41,130 projects (*People's Daily*, 11 May 2011).³ Recovery and reconstruction work was essentially completed within two years instead of the scheduled three years, and houses were rebuilt for some 20 million people in the roughly 130,000 square kilometre disaster zone.

The total gross domestic product (GDP) of all 39 counties majorly affected by the earthquake reached CNY 521.22 billion (or USD 83.84 billion) by the end of 2014, 2.32 times that at the time when the event occurred. Annual GDP growth (14.8 per cent) in the 10 counties most severely affected outstripped that in other counties in Sichuan Province (12.6 per cent) between 2009 and 2014. Urban per capita disposable income in the 39 majorly affected counties increased from CNY 11,290 (or USD 1,626) in 2008 to CNY 24,464 (or USD 3,935) in 2014, whereas rural per capita net income rose from CNY 4,446 (or USD 640) in 2008 to CNY 10,135 (or USD 1,630) in 2014 (*Sichuan Daily*, 14 May 2014).

Since countries often need a long time for the recovery and rebuilding of communities affected by a disaster, this paper examines why China seems to be much faster at completing the process. Specifically, it evaluates the PADAA programme and how it functions within the Chinese administration system.

The paper contributes to disaster recovery theory by illustrating this unique phenomenon. Conventional disaster recovery research on the political-administrative dimension focuses on the planning phase for stakeholder interaction to achieve agreement in democratic countries (Kweit and Kweit, 2004; Ganapati and Mukherji, 2014), a sluggish negotiation process that China bypasses. The PADAA programme is possible in China partly because it is pathdependent (that is, where a country is now is due to happenings in the past), and partly because it employs a conventional governance format for disaster recovery (that is, a 'multi-level moderated competition' process).

The remainder of the paper is structured as follows. Section two elaborates on the data collected from field research and secondary documents. Section three reviews the development of the PADAA programme in China. Section four adopts a political-administrative framework of multi-level moderated competition to explain why the PADAA is possible and how it works within the Chinese administration system. It explores how China's central government has been able to act as a moderator, requiring provincial and local governments to provide necessary assistance for disaster reconstruction and recovery. Section five analyses recovery in the aftermath of the Wenchuan earthquake in 2008 to illustrate the driving forces and dynamics of the PADAA programme. Section six considers the limitations of the programme and presents some conclusions.

Data and methodology

This paper seeks to discover why a unique disaster recovery phenomenon, the PADAA, is possible in China. The qualitative research method permits an investigation of the factors and mechanisms that enable the PADAA to function successfully. This section explains the data collection process and methodology adopted.

The study employed the extreme case sampling method and selected Guangdong–Wenchuan paired assistance during recovery from the Wenchuan earthquake as the subject of analysis. The reasons for choosing this case study are twofold (Yin, 2003; Gerring, 2007):

- First is its extreme large scale in terms of disaster impact and post-disaster recovery mobilisation.
- Second, when comparing contributions between different donor provinces to paired counties during reconstruction, Guangdong–Wenchuan ranked number one on the contribution scale according to the paired assistance policy, which specifies that the donor province should contribute at least one per cent of its financial income in the previous fiscal year to assist disaster-hit areas over three years (see Table 1).

This research project used multiple methods to collect data, including field observations, focus groups, interviews, and secondary document analysis. Data collection started soon after the earthquake and lasted until early 2016. The information not only concerns the PADAA and the Wenchuan earthquake, but also it pertains to recovery after the Yushu earthquake on 14 April 2010 and the Lushan earthquake on 20 April 2013, which also triggered the PADAA mechanism.

The authors visited disaster-impacted regions immediately after two major earthquakes in Sichuan Province (see the appendix): the Wenchuan earthquake in 2008 and the Lushan earthquake in 2013.⁴ Local cadres and survivors were interviewed to garner information on the impacts of the events and their recovery demands.

During the PADAA policymaking process, one of the authors was invited to attend three internal expert group meetings hosted by the National Commission for Disaster Reduction and the National Development and Reform Commission, aiding understanding of how the PADAA is activated within the administrative system. In addition, interviews and focus groups were held with donor parties (such as the PADAA Director from Guangdong Province) and recipient parties (such as the Vice-Mayor of Chengdu City, the Mayor of Shuimo Town, and the Director of the Qinghua Development and Reform Commission and their associates) during the PADAA policy implementation process. Moreover, one of the authors was asked to participate in the third-party review of Lushan earthquake recovery in January 2016, providing unique inside information on the administrative and political dynamics between donors and recipients and on how the higher level of government evaluates the performance of PADAA stakeholders.

The field research is complemented by evaluations of secondary documentation, including internal reports, newspaper articles, and policy papers.

The PADAA as path-dependence

This section assesses the evolution of the PADAA—*Duikou Zhiyuan* in Chinese, alternatively translated as counterpart assistance, counterpart support, one-to-one support, partnership support, or targeted support—in China since 1945. PADAA refers to aid offered by a region, department, or corporation (the donor) to a corresponding region, department, or corporation (the aid recipient) affected by a major disaster with the coordination of higher-level government. This policy has not only been used to aid disaster response and reconstruction, but also to assist the economic development of border and minority regions and the construction of key infrastructural projects, such as the Three Gorges Dam.⁵

The PADAA is consistent with the value of ‘one in trouble, all to help’ (*yifang younan, bafang zhiyuan*) advocated by the Chinese Communist Party (CCP). It emphasises that when one part of the country is in need, all others should provide assistance. Chinese society as a whole is considered to be a potential pool of assistance. Communities not-at-all or lightly affected by a disaster should assist survivors.

The PADAA is the product of an experiment-based policy process, appearing as a common mode of ‘proceeding from point to surface’ (Ann, Lai, and Tan, 2012, p. 123; also see Mei and Liu, 2014).⁶ It started as individual ‘experimental points’ driven by local initiative with the formal or informal backing of higher-level policy-makers. After several decades of development, the PADAA has been upgraded incrementally from local experiments to a national policy and finally to an institutionalised political instrument of the Chinese disaster management system (Zhong, 2011).

Embryonic form

An embryonic PADAA emerged during reconstruction after the Chinese civil war (1945–49). Before the founding of the People’s Republic of China (PRC) in October 1949, reconstruction assistance emerged simultaneously in two ways in CCP-controlled regions: (i) assistance from the military sector to local peasants; and (ii) assistance from early to later liberated regions. The CCP has maintained close ties with the peasantry from the early stages of the Chinese Communist Revolution (Bernstein, 1984). In fact, peasants were one of the major supporters of the CCP in the revolutionary years. Moreover, the CCP advocates civil–military integration. As a specific measure to assist the peasants, soldiers serving with the CCP military, the People’s Liberation Army (PLA), in nearby villages were mobilised to help them gather crops when there was no war. When a disaster occurred, the military was a first responder. With regard to the second point, under the unified leadership of the CCP, early liberated regions (namely, revolutionary base areas) were mandated to provide a range of financial, material, and medical assistance to later liberated regions (namely, the Kuomintang-controlled white area), which were blockaded by the Chiang Kai-shek regime.

After the CCP came to power in 1949, the programme of paired assistance from the military to the civil sector and from one region to another was inherited and expanded upon in various formats, including assistance from urban to rural areas,

from state-owned enterprises to villages, from disaster-unaffected to -affected areas. For instance, a series of natural disasters, including drought and flooding, struck north China in September 1953, threatening the autumn harvest and hence the food supply. On 16 September 1953, the North Bureau of the CCP's Central Committee ordered all party members, military forces, workers, and peasants in those areas to assist with the restoration and reconstruction of the disaster zone (*People's Daily*, 18 September 1953). When a widespread famine materialised in Shandong Province in 1960, the central government again mobilised a broad range of assistance, such as clothing food, medical supplies, shelter, and water from municipalities and provinces, including Anhui, Fujian, Jiangsu, Jiangxi, Shanghai, and Zhejiang to affected parts of Shandong (*People's Daily*, 8 December 1960).

Recognition and dissemination

Chinese authorities triggered paired assistance of disaster relief on an ad hoc basis initially. After one of the most severe droughts since 1949 occurred in China in 1978, affecting Hubei Province particularly severely, the central government assigned large state-owned enterprises in the cities of Huangshi and Wuhan with supplying paired assistance to six divided regions. After responding to the drought, the PADAA programme was acknowledged by and received much praise in the *People's Daily* for the first time. A front page story stated that 'during the drought-fighting process, Hubei Province has gained plenty of experience by crafting innovative ways of providing paired assistance (such as the rural-urban, enterprise-village) for disaster relief. Hubei mobilised forces in urban areas and state-owned enterprises to provide better support for drought-fighting efforts' (*People's Daily*, 11 November 1978).

Mainstream media coverage signalled that the PADAA programme was officially recognised as an effective method of dealing with surge demand owing to disasters in this period. The Chinese central government formally adopted the concept of paired assistance at the National Defence Frontier Conference in December 1979 for the first time to describe the corresponding programme of aid supplied by prosperous provinces in the east and coastal areas to underdeveloped ones in the middle and western regions. The central government paired five provinces with five national autonomous regions and three provinces (Beijing with Inner Mongolia, Hebei with Guizhou, Jiangsu with Guangxi and Xinjiang, Shandong with Qinghai, Shanghai with Yunnan and Ningxia, and the entire nation with Tibet). Paired assistance ranged from constructing key infrastructure to delivering services and training local people in education, public health, and science and technology.

A hybrid network of vertical and horizontal mobilisation

While the horizontal mobilisation of paired assistance (region-to-region) has made great strides since the 1980s, the vertical mobilisation of paired assistance (ministries to local government) only became prevalent in the 1990s. Following a series of droughts and flood-related disasters in several provinces along the Huaihe and Yangtze

Rivers in summer 1991, the central government mobilised more than 30 central ministries, agencies, and state-owned enterprises to deliver paired assistance to severely affected Anhui Province (*People's Daily*, 6 May 1992).

During the response to major flooding in the Nenjiang, Songhua, and Yangtze River basins in 1998, central ministries and commissions exercised their vertical power to mobilise corresponding departments in provincial and local government to assist disaster areas. The Ministry of Civil Affairs (MoCA) issued notices about its organisation and coordination of disaster relief efforts on 25 and 31 August, respectively. It tasked provinces such as Beijing, Hebei, Liaoning, Shandong, and Tianjin with issuing emergency supplies, including clothes and quilts, to disaster-affected provinces (*People's Daily*, 30 September 1998). On 15 August, the Ministry of Education (MoE) ordered education sectors in 11 provinces to send immediate disaster aid to seven disaster-hit provinces, while unaffected and lightly affected areas in the same provinces were instructed to provide paired assistance to heavily stricken areas (*People's Daily*, 16 October 1998).

The vertical mobilisation of paired assistance occurs not only at the national level, but also at the provincial and local level. After extreme storm flooding in Hunan Province in 1996, for instance, the Hunan provincial government instructed six prefectures and two state-owned enterprises to provide aid to six counties and two state-owned farms (*People's Daily*, 13 August 1996).

Enactment

Following periodic mobilisations over a few decades, the PADAA was officially enacted in 2006. The *Opinion on Comprehensively Strengthening Emergency Response Work*, issued by the State Council (the Cabinet), emphasises that governments at all levels in China should 'perfect the social mobilisation system, such as social donation and paired assistance, to mobilise the participation of social forces in major disaster rescue, relief and post-disaster rehabilitation and reconstruction' (*People's Daily*, 7 July 2006). The *National Emergency Plan on Natural Disaster Relief*, released in 2006, specifies that the central government can initiate paired assistance upon the receipt of a request from a provincial government in a disaster zone. The administrative procedure for adopting and managing counterpart disaster assistance was set out in the *Emergency Response Law of the People's Republic of China* in 2007.

The central government launched a large-scale paired assistance programme to restore and recover areas devastated by the Wenchuan earthquake of 2008. Six months after the catastrophe, the initiative was institutionalised as the reconstruction assistance model, stipulated in the amendment to the *Law of the People's Republic of China on Protecting against and Mitigating Earthquake Disasters* in 2008 (Yu, 2010). The PADAA programme was triggered and implemented after a series of natural disasters in the wake of the Wenchuan earthquake, including the Zhouqu geological disaster in Gansu Province in 2010 and the 7.1-magnitude Yushu earthquake in 2010 and the 7.0-magnitude Lushan earthquake in 2013.

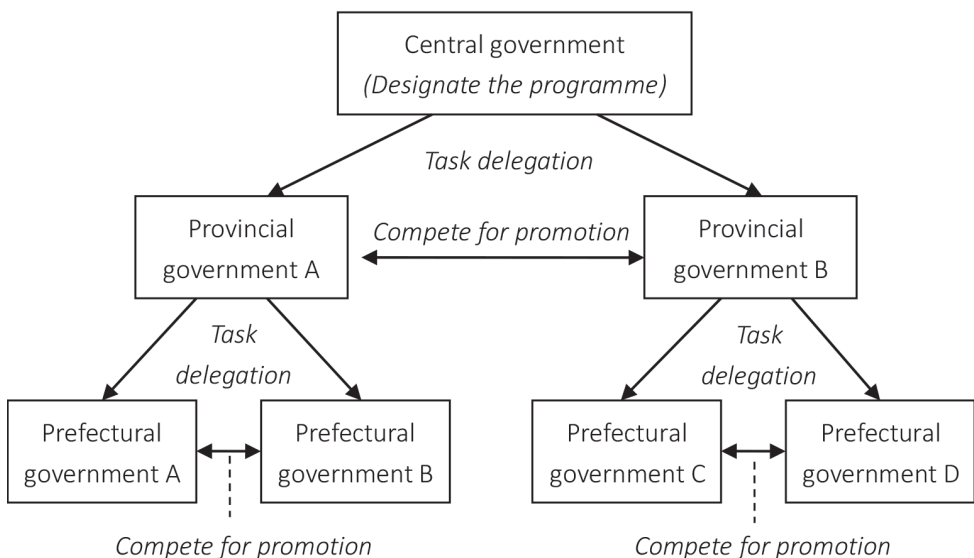
The focus of the paired assistance programme expanded from traditional natural disasters to a public health crisis following the Swine-Origin Influenza A (H1N1) epidemic in November 2009. The Ministry of Health (MoH) issued a notice entitled *To Further Strengthen Medical Treatment Work on Influenza A (H1N1)* on 13 November 2009, formally initiating the PADAA programme. Nine provinces and directly controlled municipalities in prosperous eastern and coastal areas were matched with affected underdeveloped provinces and autonomous regions⁷ and were called on to provide technical support and consultancy in response to H1N1. The provincial health departments were required to implement paired assistance within their jurisdiction, including three formats: region-to-region; major comprehensive hospitals to community clinics; and between different departments within a medical organisation (Ministry of Health, 13 November 2009).

The PADAA as a multi-level moderated competition process

The PADAA can function in China because it satisfies one of the fundamental characteristics of its administrative system: multi-level moderated competition. This occurs when local governments and officials compete with each other under the supervision and with the coordination of higher-level government (see Figure 1). The model has three components:

- **Rigorous vertical control across hierarchies.** China's central government acts as a powerful moderator within the top-down hierarchy, assigning paired assistance

Figure 1. A multi-level moderated competition model for the PADAA programme



Source: authors.

tasks to donor provincial and local governments and requesting the provision of funds, materials, strategies, and skills to disaster-affected regions.

- **Horizontal competition.** Donor provincial and local governments, which are accountable to their superiors, usually compete with each other in the implementation process to secure promotional opportunities through better performance.
- **Multi-level task delegation.** Local officials divide assigned assistance tasks from the higher level among subordinates in their jurisdiction, comprising multiple rounds of moderated competition at lower levels.

Strict vertical control in the centralised one-party political system

The centralised one-party political system⁸ nurtures strict vertical control in two ways. One way is through the exercise of power by promoting cadres via multi-level Party Committees (Oi, 1995). In theory, local party leaders and local governors are elected by a local congress of party representatives and a local people's congress respectively, yet in reality most of the candidates are selected by the Party Committee within their superior government, and then voted by a local congress (Yao and Zhang, 2015). Under this mechanism, most local governors or party leaders feel more responsibility to their superiors than to the people in their jurisdiction (Tusi and Wang, 2008). The other way is through the introduction of the target responsibility system (*mubiao zerenzhi*), which is used to evaluate the performance of local cadres according to targets set by their superior governments. Promoting local cadres is not determined solely by favours from members of the superior Party Committee, but also by annual performance records in their jurisdiction. The appraisal system consists of very detailed indicators spanning almost every policy area (Liu and Dong, 2012). Every year, local leaders are set targets by their superiors. Failing to achieve them will be likely hinder the promotion or reappointment of local leaders.

The strict vertical political system means that higher authorities can mobilise every level of bureaucracy (provinces, prefectures, counties, townships, and even villages) for a temporary task (Tan, Huang, and Wang, 2011). A similar phenomenon has been observed frequently during crisis situations and major mega events. The CCP's official newspaper notes that 'from the trifecta of the 2008 Beijing Olympics, the reconstruction of the 2008 Wenchuan earthquake, the 2010 Shanghai World Expo and the 2010 Asian Games to the rapid evacuation of Chinese citizens from Libya, China has demonstrated its capacities to mobilise a staggering amount of resources to accomplish massive tasks' (*People's Daily*, 13 May 2011).

Local competition and politicised mobilisation

The central government can enhance local accountability by promoting inter-regional and local political competition, or 'yardstick competition', wherein jurisdictions are evaluated by the higher-level authority according to a set of standardised performance criteria (Liu and Tao, 2007). The structure of interregional competition in China is characterised by a 'promotion tournament', whereby local leaders engage in a competition for promotion (Li and Zhou, 2005; Zhou, 2007; Xu, 2011).⁹

Targets set by higher-level governments seem to influence subordinating governments' decisions regarding the allocation of resources (Edin, 2003; Saich, 2005). Targets frequently are of three types: hard (*ying zhibiao*); soft (*yiban zhibiao*); and with veto power (*yipiao foujue*). Hard targets are set by the county for the township and are primarily economic, including meeting tax revenue objectives and certain levels of growth. Soft targets are typically those that are difficult to measure and quantify, and tend to concern social development policies that higher-level governments do not deem to be important, such as education and healthcare provision and environmental protection. Finally, higher-level governments usually hold veto power over subordinating governments, if they do not meet priority targets, such as the maintenance of social order and satisfying family planning quotas. Clearly, the first and last target types are vital to officials, as failure to fulfil them means that other work over the entire term will be discounted and promotion opportunities or economic rewards will be diminished (Saich, 2008).

The central government usually categorises catastrophic disaster reconstruction as a hard target with a high level of politicisation. When a disaster impacts majorly on society or has very high public visibility, the central government often initiates the PADAA programme. Subsequently, the PADAA is regularly categorised as a primary task on the local policy agenda. On the one hand, the paired relation is designated by the central government and paired assistance is labelled as a 'political task' (*zhengzhi renwu*). Given the high level of politicisation, the local government generally considers it to be a primary task that should be accomplished on schedule, meeting quality and quantity standards. On the other hand, the schedule for the paired assistance task is relatively tight in contrast to long-term routine undertakings such as cultural and social development, ranging from several months to several years. The performance of the PADAA is measurable, and direct comparisons can be made between different donor governments, drawing attention from the higher-level government, the mass media, and disaster survivors. As a result, the political mobilisation of the PADAA programme can easily trigger competition between donor parties, sometimes causing wasteful investment.

During reconstruction following the 7.1-magnitude earthquake that hit Yushu County, Qinghai Province, on 15 April 2010, the central government made Beijing Municipality the 'main socialist construction supporter', charged with providing funds, materials, strategies, and skills for the construction of public facilities and infrastructure in the epicentre zone, Yushu Tibetan Autonomous Prefecture. The Beijing Municipal Government and the Party Committee attached great importance to paired assistance work. Liu Qi, a member of the Political Bureau of the CCP Central Committee and the Secretary of the CCP Beijing Municipal Committee, spoke of accomplishing the 'glorious and honourable task' of supplying paired assistance according to the standards of the premier region, whereas Beijing Mayor Guo Jinlong said that the city would do its best to conduct the paired assistance mission. The Beijing Municipal Government and the Party Committee soon established a frontline headquarters to coordinate paired assistance activities, and planned 114 aid projects in just three months after the earthquake. By the end of 2011, less than two

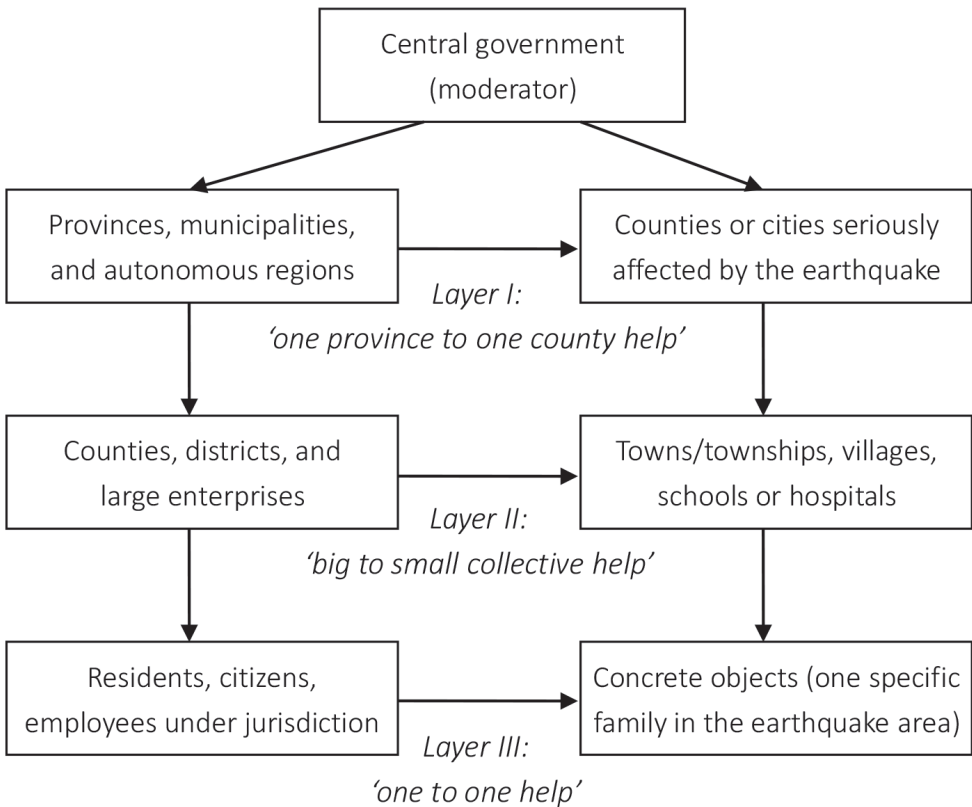
years since reconstruction work was initiated, 70 of 114 aid projects had been completed ahead of schedule (*People's Daily*, 3 February 2012).

Delegation of layered assignments

Once the target is set by the central authorities and assigned to provincial officials, the latter will divide it up into sub-targets and assign them to corresponding lower-level actors within their jurisdiction (Rong et al., 1998). Similar division and delegation occurs across different hierarchies from the provincial to the prefecture level, up until the county level. This helps higher levels of government to shift the burden downwards to lower levels of government, ensuring that targets are met.

The PADAA follows the same path of 'assignment delegation'. Once the central government has assigned a PADAA task, provincial governments usually divide it among corresponding lower-level governments. The division of tasks spans multiple levels (three for the Wenchuan earthquake, as shown in Figure 2), guaranteeing a connection between donors and aid recipients in the top-down system of bureaucracy (*People's Daily*, 6 June 2008).

Figure 2. The multi-layered vertical framework for the PADAA programme after the Wenchuan earthquake



Source: authors.

The top layer contains the central government, which acts as a moderator, activating the PADAA and assigning paired relations: 'one province to one county help', with provinces, municipalities, and autonomous regions not affected by the disaster aiding seriously impacted counties. On 22 May 2008, the MoCA issued an urgent notice, requiring that Beijing and 20 other provinces, municipalities, and autonomous regions each should assist a county or city at the county level and hence speed up post-earthquake reconstruction efforts (for instance, Beijing and Shifang, Shanghai and Dujiangyan, Guangdong Province and Wenchuan, and Shandong Province and Beichuan).

The second layer sees task delegation extend downward to the prefecture level: 'one prefecture to one town help'. Prefectures delegate assignments to their districts, counties, and large state-owned enterprises, and enable them to help a town or a township, a village, a school, or a hospital. During the PADAA programme for the Wenchuan earthquake, 13 prefectures in Guangdong Province were assigned and paired with 13 townships in the epicentre, Wenchuan County, to advance reconstruction.

On the third layer, districts and counties, large state-owned enterprises, and public institutions call on their residents, citizens, or employees to participate voluntarily in specific aid projects. For example, to assist the reconstruction of senior and junior middle schools in Shifang City, the Beijing municipal authorities entrusted some big enterprises with rebuilding hardware, and key middle schools in Beijing with recruiting teacher volunteers. By August 2009, 15 schools had been paired with counterpart schools in Shifang, and 20 teacher volunteers had been sent to train 1,700 local teachers (*Beijing Daily*, 31 August 2009).

Case study: the PADAA and reconstruction after the 2008 Wenchuan earthquake

The Wenchuan earthquake affected some 46.25 million people in 417 counties in 10 provinces, such as Chongqing, Gansu, Shaanxi, and Sichuan.¹⁰ Notably, 69,227 people were killed, 17,923 were missing, and 6 million houses in rural areas and 102 million square metres of housing stock, critical infrastructure, and public facilities in urban areas were completely destroyed, amounting to a total economic loss of CNY 845.1 billion (or USD 121 billion). The affected area is approximately 500,000 square kilometres in total, with exceptionally heavily and heavily hit areas spanning roughly 130,000 square kilometres (Chen and Booth, 2011).

Fourteen days after the earthquake, on 26 May 2008, China's top leadership launched various post-disaster recovery programmes, including the PADAA, which was activated on an unprecedented scale by the MoCA. Nineteen provinces and municipalities directly under the central government in the east and middle regions of China were mandated to establish one-to-one paired relations with 19 of the most severely affected counties. The PADAA programme was one of the key sources of finance for reconstruction and recovery (Tan, Huang, and Wang, 2011).

Activation of the PADAA

The PADAA was based on the National Emergency Plan for Natural Disaster Relief (2006 version) but adapted because of the unexpected scale of the damage. The plan only specified that Jiangsu should provide paired assistance to Sichuan in the disaster recovery process. Clearly, the damage in the province was beyond the recovery capacity of Sichuan and its partner Jiangsu. The MoCA issued an Urgent Notice on Providing Paired Assistance to Wenchuan Catastrophic Earthquake Stricken Areas on 20 May 2008, requesting that the civil affairs departments in six provinces (Guangdong, Henan, Hubei, Jiangsu, Shandong, and Zhejiang) provide aid to disaster-hit prefectures in Sichuan, such as emergency assistance and temporary housing. Paired assistance activities escalated two days later, when civil affairs agencies in all provinces were designated with assisting the 21 seriously affected counties in Sichuan, as well as disaster-impacted regions in Gansu and Shaanxi Provinces.¹¹

The central government upgraded the PADAA programme over the next few days: mobilisation by a single central ministry (MoCA) became full-scale mobilisation by the highest-level authority in the Chinese political system. The Political Bureau of the CPC Central Committee decided, on 26 May, to ‘adopt the paired assistance programme and accelerate post-quake recovery and reconstruction work through the concerted efforts of the entire country’, requiring that every affected county receive financial support for reconstruction from a provincial-level government (State Council of the PRC, 2008). The national-level Wenchuan Earthquake Rescue and Relief Headquarters (WERRH), established on 12 May with Premier Wen Jiabao coordinating rescue and relief efforts, further stated that paired assistance should be implemented in a format of ‘one province to one heavily hit county’, and with several provinces assisting one heavily hit prefecture. The Standing Committee of the Political Bureau of the CPC Central Committee re-emphasised the status of the PADAA programme on 5 June, requesting that the provinces and municipalities involved in the reconstruction project support the affected counties in various ways, including with intelligence, labour, materials, and money, under the unitary reconstruction plan of the central authorities (Xinhua News Agency, 5 June 2008).

The PADAA programme was legalised by two official documents released by the State Council on 8 and 11 June 2008, respectively: ‘Regulations on Post-Wenchuan Earthquake Restoration and Reconstruction’; and ‘The Paired Assistance Programme for Post-Wenchuan Earthquake Restoration and Reconstruction’—see Table 1 for paired relations between donor provinces and disaster-impacted counties.¹² The PADAA programme requires that each province or municipality contribute at least one per cent of its financial income in the previous fiscal year to its paired disaster-hit area for three years. As shown in Table 1, the ratio of total aid provided by the PADAA to total cost required for reconstruction is estimated to range from a high of 70.5 per cent to a low of 2.79 per cent.

Table 1. The distribution of PADAA programme funds through counterpart relations after the Wenchuan earthquake

Wenchuan earthquake-affected counties	Total cost of reconstruction*	Counterpart provinces	Provincial financial income*			Aid fund		Difference between real and required assistance fund*	Number of assistance projects***	Handover date of assistance projects	
			2007	2008	2009	Required	Real				PADAA as % of total reconstruction cost
Beichuan	80	Shandong	167.54	195.705	219.863	5.831	12.1	15.13	62.69	369	25-09-2010
Wenchuan	100	Guangdong	278.58	331.032	364.981	9.746	11.2	11.20	14.54	702	10-10-2010
Qingchuan	40	Zhejiang	164.95	193.339	214.251	5.725	8.6	21.50	28.75	547	17-09-2010
Mianzhu	160	Jiangsu	223.773	273.141	322.878	8.198	11	6.88	28.02	295	13-09-2010
Shifang	100	Beijing	149.264	183.732	202.681	5.357	7	7.00	16.43	108	26-09-2010
Duijiangyan	70	Shanghai	207.448	235.875	254.03	6.974	8.25	11.79	12.76	117	15-09-2010
Pingwu	60.8	Hebei	78.912	94.759	106.712	2.804	2.7	4.44	-1.04	108	15-10-2010
Anxian	108	Liaoning	108.269	135.608	159.122	4.03	4.027	3.73	-0.03	88	30-09-2010
Jiangyou	107.5	Henan	86.208	100.89	112.606	2.997	3	2.79	0.03	300	02-11-2010
Pengzhou	27.3	Fujian	69.946	83.34	93.243	2.465	3.36	12.31	8.95	146	20-06-2010
Maoxian	70	Shanxi	59.789	74.8	80.583	2.152	2.162	30.89	0.10	226	25-12-2010
Lixian	58.325	Hunan	60.655	72.271	84.762	2.177	2.01	3.45	-1.67	99	10-10-2010
Heishui	17	Jilin	32.069	42.28	48.709	1.231	1.297	7.63	0.66	201	15-10-2012
Songpan	23.7	Anhui	54.37	72.462	86.392	2.132	2.048	8.64	-0.84	50	10-05-2011
Xiaojin	13	Jiangxi	38.985	48.865	58.13	1.46	1.3	10.00	-1.60	48	02-06-2010
Hanyuan	3	Hubei	59.036	71.085	81.487	2.116	2.115	70.50	-0.01	116	25-06-2010
Chongzhou	35	Chongqing	44.27	57.757	65.517	1.675	1.7	4.86	0.25	111	28-09-2010
Jiange	20.3	Heilongjiang	44.047	57.828	64.166	1.66	1.55	7.64	-1.10	146	26-09-2010
Gansu**	80	Shenzhen	65.8	80.036	88.08	2.339	3	N/A	6.61	165	09-10-2010
Shaanxi	100	Tianjin	54.044	67.562	82.199	2.038	2.162	N/A	1.24	295	12-04-2010
Total	10,205	-	2,047.955	2,472.367	2,790.392	73.107	84.38	-	-	4,121	-

Notes: * Measured in CNY billion. ** Official statistics for severely affected areas in Gansu (mainly supported by Shenzhen) and Shaanxi (supported by Tianjin) are not available. *** The deadline for data for real assistance fund and assistance projects was September 2010, when it was officially announced that recovery and reconstruction work was basically completed within two years instead of the scheduled three years.

Sources: National Bureau of Statistics of China (2008); State Council of the PRC (2008); Xinhua News Agency (10 May 2011).

Besides financial aid, donor provinces are obliged by the central government to provide various kinds of aid. At a minimum this assistance includes resources for:

- planning and designing, construction, expert consulting, project construction, and inspection;
- renovation of residential communities;
- restoring and upgrading public facilities and infrastructure, such as disposal of sewage, gas and water supplies, hospitals, roads, schools, and social welfare;
- selecting and sending doctors and teachers to hospitals and schools in affected areas, and providing construction materials, equipment, facilities, and tools to aid reconstruction;
- training services and education and schooling for students who cannot return to education; and
- restoring basic infrastructure for trading and operational centres (Xu et al., 2014).

Prioritising paired assistance tasks

Senior leaders in China viewed the PADAA programme as a top-down political initiative. At the national level, post-earthquake reconstruction has become a primary objective for the whole country. The Party Committee and the State Council held a meeting on 13 June 2008 with governors from all provinces, autonomous regions, and municipalities, as well as with all central ministers and commissioners. Chinese President Hu Jintao stated that the ‘disaster-affected victims are members of the big family of China’ and that ‘helping to reconstruct their homes and to return to the normal order of urban and rural production and life is a common wish and obligation shared by all Chinese’ (*People’s Daily*, 13 June 2008).

Once the central government designated paired relations and clarified financial assistance, all donor provinces were mobilised politically to ensure the achievement of targets set by the top authority. Governments in donor provinces soon set up headquarters to coordinate paired assistance activities and reconstruction projects. For example, the Guangdong Provincial Government established a high-ranking headquarters on 14 June, with Governor Huang Huahua as its Chief and with Executive Vice-Governor Huang Longyun as well as a Vice-Chair of the Standing Committee of the Provincial People’s Congress, a Vice-Chair of the Provincial People’s Political Consultative Conference, and the Mayor of Shenzhen as Vice-Chiefs. During the inaugural meeting on paired assistance to affected areas, Governor Huang Huahua underlined that assigned relations between Guangdong and Wenchuan ‘demonstrated the full confidence and high expectations of the Party Central Committee and the State Council to Guangdong’. He added that it is ‘a bounden duty and important political task for Guangdong to be in the vanguard in implementing the reform and opening-up policy’ and that ‘we should consider it a glorious mission, a challenging task and a great responsibility, and make great efforts to ensure the target is fulfilled’ (Xinhua News Agency, 25 July 2008).

To compete with each other under the vertical control system, local officials from donor provinces rapidly organised an influx of capital, materials, and experts for reconstruction. Jilin Province's counterpart aid to Heishui County is a typical case in point. By 15 October 2012, all 201 aid projects with a total investment value of CNY 1.297 billion (or USD 205.47 million) had been completed (Xinhua News Agency, 16 October 2012). According to Jilin Provincial Deputy Party Secretary Zhu Yanfeng, since 'the Wenchuan earthquake, the Jilin provincial party committee and government have resolutely implemented the decisions and arrangements of the Central Party Committee and the State Council, [and] promptly dispatched capable forces to Heishui to participate in reconstruction work'. He goes on to point out that '[o]ver the past four years, the Jilin provincial party committee and government have always viewed the aided projects as major political tasks and mobilised the entire province to carry out the aided reconstruction projects' (Xinhua News Agency, 16 October 2012).

A principal role of the PADAA programme was to serve as a key source of finance for reconstruction. With the programme high on the national policy agenda, the central government marshalled large amounts of financial and other resources for post-disaster rehabilitation and reconstruction.¹³ It announced that CNY 1020.5 billion (or USD 150 billion) for 41,130 projects had been integrated into the three-year national reconstruction plan as of September 2009, with the central government providing CNY 302.6 billion (or USD 44.30 billion) of the total sum (*People's Daily*, 12 May 2011).¹⁴ The resources committed to the PADAA by the 19 donor provinces rose to CNY 22.7 billion (or USD 3.27 billion) by August 2008 (*Economic Daily*, 6 October 2008), CNY 34 billion (or USD 4.98 billion) by March 2009 (*People's Daily*, 12 March 2009), and eventually CNY 84.38 billion (or USD 12.5 billion US dollars) for 4,121 reconstruction projects by September 2010, when it was officially announced that recovery and reconstruction work was basically complete (*People's Daily*, 11 May 2011). In Wenchuan County, Guangdong Province pair assisted 702 reconstruction projects through a committed fund worth CNY 8.2 billion (or USD 1,211 million), which were concluded by October 2010 (Xinhua News Agency, 10 October 2010).¹⁵

The division of paired assistance tasks

After the central government assigned paired assistance tasks to donor provinces, the latter broke them down further into multiple sub-tasks and assigned them to different prefectures in their jurisdictions. Through such delegation, provincial governments were able to shift the pressure of paired assistance and initiate another round of performance-related competition between different prefectural governments. For example, Guangdong Province, paired with Wenchuan County, assigned its 13 prefectures with pair assisting 13 townships in Wenchuan County (see Table 2).

As shown in Table 1, 17 of the 19 donor provinces (except Anhui and Jilin) completed assistance tasks within two years instead of the scheduled three years. With

Table 2. Paired relations between Guangdong Province and Wenchuan County

Disaster-affected towns	Counterpart prefectures
Weizhou	Guangzhou
Shuimo	Foshan
Yingxiu	Dongguan
Xuankou	Zhongshan
Miansi	Zhuhai
Yanmen	Jiangmen
Sanjiang	Huizhou
Chaopo	Shantou
Longxi	Zhanjiang
Keku	Zhaoqing
Yinxing	Maoming
Wolong	Jieyang
Gengda	Chaozhou

Source: authors, based on *The Plan for Paired Assistance to Post-quake Areas to Support Rehabilitation and Reconstruction* (adopted by the Guangdong Provincial Government in June 2008).

the exception of Anhui, Heilongjiang, Hunan, and Jiangxi, all of the other provinces (15) met the central government's requirement for assistance funding, of which eight exceeded the assigned amount. Shandong Province provided CNY 6.269 billion (or USD 971 million) of the required amount. Foshan Prefecture's assistance to Shuimo Town in Wenchuan County resulted in it winning an international prize in recognition of its extraordinary efforts. Initially, Foshan City made a preliminary pledge of CNY 640 million (or USD 92.2 million) to the reconstruction of Shuimo Town, a figure exceeding 60 years of annual revenue in Shuimo prior to 2008 (Liu, 2011, p. 33). In the reconstruction planning phase, Foshan officials realised, that CNY 640 million was far from enough to complete its reconstruction plan. Consequently, an additional CNY 200 million (or USD 28.8 million) or so was procured from provincial assistance awards and nearly CNY 200 million from various public donations. Overall assistance from Foshan for the reconstruction of Shuimo Town ultimately reached CNY 1.07 billion (or USD 165.7 million) (Xu et al., 2014). As a result, the reconstruction of Shuimo proved to be a successful case of post-disaster development, transforming it into a modern artistic and sustainable town. According to a former United Nations Environment Program official, Shuimo 'highlighted ecologically-friendly and low-carbon concepts', and featured 'reconstruction projects that were well-integrated into people's lives' (Xinhua News Agency, 14 December 2012). In 2011, Shuimo Town received the 'Best Global Implementation of Post-Disaster Reconstruction' award at the Sixth Global Forum on Human Settlements of the United Nations (Xinhua News Agency, 12 April 2011).

Conclusion

The PADAA goes beyond the two major recovery approaches that are prevalent in other countries: 'bouncing back'; and 'attaining the counterfactual state proposed' (Chang, 2010; Cheng, Ganapati, and Ganapati, 2015). Officially defined as the engine of efficient earthquake restoration and reconstruction, China's PADAA programme made sustainable development in disaster-affected regions its key goal. The assistance allowed disaster survivors to improve their living standards radically, and economic indicators in impacted areas rose significantly. For instance, GDP, local budget revenues, urban per capita disposable income, and rural per capita net income in six of the most affected prefectures in 2011 were, respectively, 1.95, 2.39, 1.7, and 1.75 times greater than those in 2007 (*Sichuan Daily*, 27 February 2012).

The PADAA is consistent with the current centralised one-party political environment in China, and it is more capable of providing assistance than other channels such as non-governmental organisations or international humanitarian agencies (Xu and Lu, 2013), which remain underdeveloped in contemporary China. As the case of reconstruction after the Wenchuan earthquake demonstrates, the activation and implementation of the PADAA is a common administrative process, namely 'multi-level moderated competition'. The central authority can promote interregional and local political competition vis-à-vis the PADAA because it has the power to impose strict vertical control and enhance local accountability. Considering the uneven economic and social development between regions, the PADAA can be considered as a kind of national 'resource pool' managed by the central government, potentially reducing resource convergence in some disaster-impacted areas that attract more media coverage (Fritz and Mathewson, 1957; Holguin-Veras et al., 2014).

Nonetheless, as identified in the case study, there are some flaws in the design and implementation of the PADAA. First, it could not go beyond the negative consequences common in other areas of the moderated competition system, such as over-reactions by donor provinces or cities and over-competition among donor provinces or between cities (Gao, 2015). Such overreaction and over-competition resulted in an imbalance between the 'hard' and 'soft' components of post-disaster reconstruction projects (Pugh, 1998; Williams, 2005, p. 268; Martz, 2010). Second, completing assigned tasks according to a tight schedule meant that there was a danger of donor provinces not understanding recipients' demands, leading to disconnections between demand and supply, sometimes causing unnecessary wasteful investment. Third, imbalanced giver-and-taker assistance is not easily sustained; there were failures to move from one-way paired assistance to lasting mutual cooperation. Fourth, given ongoing large-scale privatisation and decentralisation in China, it remains questionable whether the PADAA can exist as before in the long term.

In sum, the experience of the PADAA programme in China shows that models adopted for disaster recovery should consider national political-administrative traditions and governance styles employed in normal situations, rather than simply copying and applying approaches utilised in other contexts.

Appendix

A chronology of data collection activities

Date	Venue	Interviewees	Topics
1–20 June 2008	Wenchuan earthquake impacted area	5 Local cadres and 10 disaster survivors	Earthquake impacts and reconstruction demands
11 October 2008	China National Commission for Disaster Reduction, Beijing	Director and associates	Decisions about the PADAA
1 December 2008	National Development and Reform Commission, Beijing	Director of Department of Western Region Development and associates	Implementation of overall planning by the state for restoration and reconstruction following the Wenchuan earthquake and decisions about the PADAA
12–13 May 2009	Wenchuan, Sichuan Province	Guangdong PADAA Director and associates	Progress of the Guangdong PADAA in Wenchuan County
12–13 May 2010	Chengdu, Sichuan Province	Vice-Mayor of Chengdu and associates	Progress of restoration and reconstruction following the Wenchuan earthquake and of the PADAA in Chengdu Municipality, Sichuan Province
17–20 June 2013	Lushan and Ya'an, Sichuan Province	6 local cadres and 8 disaster survivors	Earthquake impacts and reconstruction demands
22–25 July 2013	Xining and Yushu, Qinghai Province	Director of Qinghai Development and Reform Commission, 10 Yushu local cadres and associates	Progress of reconstruction and PADAA after the Yushu earthquake
10–11 May 2014	Shuimo Town, Aba, Sichuan Province	Mayor of Shuimo Town and associates	Reconstruction situation in Shuimo Town
5–6 January 2015	National Development and Reform Commission, Beijing	Director of Department of Western Region Development and associates	Progress in the coordination of reconstruction and PADAA after the Lushan earthquake
12–13 January 2016	Sichuan Development and Reform Commission, Chengdu	Director of Sichuan Development and Reform Commission and associates	Third-party evaluation of disaster recovery
14–15 January 2016	Lushan, Sichuan Province	12 local cadres, 11 disaster survivors, and 3 cadres from donor provinces	Third-party evaluation of disaster recovery

Source: authors.

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Endnotes

- ¹ For an earlier version of this paper see Zhong and Lu (2014).
- ² This was the most destructive earthquake in China in the past three decades, measuring 8.0 on the Richter scale.
- ³ A total of CNY 1020.5 billion (CNY 302.6 billion from the Chinese central government) had been provided for the recovery and reconstruction following the Wenchuan Earthquake by 11 May 2011 (*People's Daily*, 11 May 2011).
- ⁴ Although the Lushan earthquake is not the focus of this research, the visit helped with understanding better the extreme situation following the Wenchuan earthquake.
- ⁵ The Three Gorges Dam is not just the world's largest hydropower project, but also it is responsible for the largest ever case of development-caused population displacement and resettlement. The Three Gorges reservoir occupies 227 villages and towns in 21 counties (cities, districts) in Hubei Province and Chongqing Municipality, resulting in the resettlement of more than 1.3 million people (Yu, 2010) and the relocation of 1,629 industrial and mining enterprises since 1993 (Tan, 2008).
- ⁶ China's experiment under hierarchy 'is not equivalent to freewheeling trial-and-error or spontaneous policy diffusion' but is a 'purposeful and coordinated activity geared to producing novel policy options that are injected into official policy making and then replicated on a larger scale' (Heilmann, 2008a, p. 3; also see Heilmann, 2008b).
- ⁷ The paired relations include Beijing to Inner Mongolia, Henan and Xinjiang, Tianjin to Hebei, Liaoning to Ningxia, Shanghai to Heilongjiang, Yunnan and Tibet, Jiangsu to Shaanxi and Gansu, Zhejiang to Guizhou and Qinghai, Shandong to Anhui, Hubei to Shanxi, Guangdong to Jiangxi, Guangxi and Hainan, respectively.
- ⁸ China has a centralised political system with the CCP being the single ruling party. There are five practical (de facto) levels of government: central; provincial; prefecture; county; and township. Each has its own independent budget and independent or shared revenue sources. Two lines exist at each level, party and administrative, with two officials assuming the highest office: the secretary of the local CCP committee; and the head of the executive branch (such as the governor at the provincial level, the mayor at the city level, and the magistrate at the county level). The constitution specifies three hierarchy levels: the province; the county; and the township. However, two more levels were added at the time of implementation: the prefecture level under the province; and the village level under the township. China has 33 provincial regions, 333 prefectural regions, 2,862 county regions, 41,636 township regions, and around 600,000 village regions.
- ⁹ Since the late 1970s China has engaged in dual decentralisation in transforming its economy. As a result, local governments not only began to enjoy more autonomy in local economic management, such as local enterprise development, but also to assume primary responsibility for delivering local public goods and service provision (Mok and Wu, 2013).
- ¹⁰ The affected areas included 4,667 townships and 48,810 villages.
- ¹¹ Anhui to Songpan, Beijing to Shifang, Fujian to Lixian, Guangdong to Wenchuan, Guangxi to Heishui, Hainan to Baoxing, Hebei to Chongzhou, Heilongjiang to Wenjiang, Henan to Jiangyou, Hubei to Hanyuan, Hunan to Pengzhou, Inner Mongolia to Dayi, Jiangsu to Mianzhu, Jiangxi to Xiaojin, Jilin to Pingwu, Liaoning to Anxian, Shaanxi to Pixian, Shandong to Beichuan, Shanghai

- to Dujiangyan, Tianjin to Maoxian, and Zhejiang to Qingchuan. Besides providing paired assistance to Shifang and Maoxian, Beijing and Tianjin also were assigned with assisting Longnan Prefecture and Gannan Prefecture in Gansu Province, respectively. The number of paired assistance relation decreased from 21 to 19 on 11 June 2008 when the MoCA's list was replaced by the State Council's list. The latter excludes Guangxi, Hainan, and Inner Mongolia, but includes Chongqing.
- ¹² Owing to its economic power, Shenzhen (a major city in Guangdong Province) was independently paired with severely affected areas in Gansu Province.
- ¹³ The past three decades have witnessed great achievements by China in the sphere of economic reform. China had overtaken Japan as the world's second-largest economy by the second quarter of 2010 (*People's Daily*, 18 August 2010). Furthermore, the country's central government controlled the bulk of national revenue. National revenue reached CNY 6.13 trillion (or USD 883 billion) in 2008, of which CNY 3.27 trillion (or USD 471 billion) was collected by the central government and CNY 2.86 trillion (or USD 412 billion) was collected by local governments (Ministry of Finance, 2009).
- ¹⁴ Other funding channels for recovery and reconstruction in disaster-affected areas include local government allocation, social donations, domestic bank loans, capital market financing, foreign emergency loans, urban and rural self-possessed and self-collected funds, the self-possessed and self-collected funds of state-owned enterprises, and innovation financing (Xu et al., 2014).
- ¹⁵ By May 2011—three years after the launch of reconstruction activities following the Wenchuan earthquake—China had allocated more than CNY 300 billion (or USD 46.5 billion) from the central government's budget for the rebuilding of 51 of the most seriously affected counties. According to official reports, 99 per cent of the 29,692 projects in Sichuan Province included in overall planning for national post-disaster reconstruction have been completed, 99.5 per cent of the CNY 865.8 billion (or USD 135 billion) fund has been utilised, and 13,647 projects in 12 of the worst-hit and 91 of the less-hit counties are almost finished. The fund for reconstruction and redevelopment in a total of 142 earthquake-impacted counties reached CNY 1,700 billion (or USD 265 billion) in three years (*Xinhua News Agency*, 10 May 2011).

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