

Implementation of Disaster Reduction Measures and Enhancement of Integrated Risk Governance in China

Summary of the Remarks at the High-Level Dialogue, Official Statement, and Plenary Session of the Fourth Session of the Global Platform on Disaster Risk Reduction, 21–23 May 2013, Geneva, Switzerland

Li Jiang

Ministry of Civil Affairs of China
Academy of Disaster Reduction and Emergency Management, Beijing Normal University

The past several years have witnessed the toughest period of natural disasters in Chinese history, in terms of frequency and concurrency, as well as variability in damage and recurrences. The Chinese government takes action quickly and engages in disaster emergency response and disaster relief work with huge human resource and material inputs. We have made great efforts in fighting against catastrophic natural disasters such as the low-temperature induced snowstorm in Southern China (2008), the Wenchuan earthquake in Sichuan Province (2008), the Yushu earthquake in Qinghai Province (2010), the Zhouqu mountain torrents and mudslide in Gansu Province (2010), and the Lushan earthquake in Sichuan Province (2013). With accumulated experience and through improving the legal and institutional frameworks, as well as with improved disaster mitigation and prevention measures, we have lifted our disaster resilience to a new level, reduced disaster losses, and contributed to the economic and social sustainability of the affected regions.

1 Implementation of the National Disaster Prevention and Reduction Plan

China has had to deal with some of the most severe natural disasters in the world. Global climate changes, rapid domestic economic development, and China's accelerating urbanization process have exerted pressures on China's resources, environment, and ecology, resulting in an ever more complex and daunting situation of natural disaster prevention and management. In disaster prevention and reduction, the Chinese government follows the principle of "comprehensive disaster reduction." China integrates disaster prevention and reduction work into its overall governance structure; builds capacity mainly in cross-agency collaboration and cross-regional cooperation on multi-hazard comprehensive prevention and reduction; plans holistically measures against natural disasters as well as all stages of disaster prevention and reduction; leverages resources from all sides and integrates multiple

tools such as laws, regulations, market, and technology; and strives to reduce life and property losses. Through consistent inputs in comprehensive disaster prevention and reduction, we have completed three transformations: from single-hazard to multi-hazard disaster risk reduction, from focusing solely on disaster relief to emphasis on both disaster relief and disaster reduction, and from disaster mitigation to disaster risk reduction. Figure 1 illustrates the progress of integrated disaster risk reduction in China in the past 25 years.

The China National Commission for Disaster Reduction (CNCDR) is the comprehensive coordinating organization for disaster prevention and reduction at the level of the central government. It is commissioned to research and formulate national disaster reduction guiding principles, policies, and plans; coordinate major national disaster reduction activities; guide localities in their disaster reduction efforts; promote disaster reduction international exchange and cooperation; and to organize and coordinate disaster response and relief work nationwide.

The CNCDR is composed of 34 member organizations including relevant governmental agencies, research institutions, and nongovernmental organizations. The Commission Office is located in the buildings of the Ministry of Civil Affairs. The Expert Board of CNCDR serves as a national level think tank to provide decision support for national disaster prevention and reduction strategy development. At the local level, over 80 percent of Chinese provinces have set up provincial level disaster reduction commissions. So have those cities and counties that are prone to disasters.

In 2011, the Chinese government stipulated the National Comprehensive Disaster Prevention and Reduction Plan (2011–2015) (hereinafter referred to as the Plan), with well-defined disaster prevention and reduction goals, tasks, and major projects during 2011–2015. This Plan is of great importance to China's comprehensive disaster prevention and reduction capacity building, and to the promotion of coordinated and sustainable economic and social development.

The Ministry of Civil Affairs, the National Development and Reform Commission, and the CNCDR were designated to draft, compile, and verify the Plan. After widely soliciting opinions from all levels of society, the Plan was issued by the General Office of the State Council. The CNCDR is in charge of the coordination and planning of practical measures for implementation.

The Plan stipulates eight development goals to be fulfilled by the end of 2015:

- (1) Determine natural disaster risks in key areas of the country, and initially set up a nationwide information platform for comprehensive disaster reduction and risk management, so as to further enhance the capacity in natural disaster monitoring and early warning, statistical analysis of loss data, and information services.
- (2) Reduce by a large margin the loss of life in natural disasters of the same intensity, and keep the proportion of direct economic loss from disasters to below 1.5 percent of GDP.
- (3) Integrate disaster prevention and reduction into national economic and social development plans at various levels, and reflect the demands of disaster prevention and reduction in plans of land use, resource management, energy supply, urban and rural development, and poverty alleviation.
- (4) Ensure disaster affected people receive initial relief and basic subsistence support within 12 hours of natural disasters. The proportion of natural disaster insurance compensation to direct economic loss from natural disasters shall be remarkably improved. Post-disaster reconstruction of infrastructure and residential buildings should satisfy the required design code.
- (5) Enhance substantially the awareness of the general public on disaster prevention and reduction. We shall spread disaster prevention and reduction knowledge among the

general public, especially university, high school, and primary school students.

(6) Reinforce the disaster prevention and reduction personnel in scale and knowledge structure. We need a total of 2.75 million disaster prevention and reduction specialists.

(7) Create 5000 national level comprehensive disaster reduction demo communities, with at least one disaster monitoring person in each urban and rural grassroots community.

(8) Further improve the disaster prevention and reduction mechanisms. We shall establish comprehensive disaster prevention and reduction coordination mechanisms in all provinces, autonomous regions, municipalities directly under the central government, and further improve these mechanisms in the municipalities/counties/townships/districts that are most vulnerable to disasters.

The recognition of these goals indicates that China’s disaster prevention and reduction work now has quantifiable assessment criteria, which aim to guarantee the quality of Plan implementation.

The Plan also lists 10 tasks to build up capacity, including natural disaster monitoring and early warning, risk management, civil engineering measures, community disaster reduction, emergency response, recovery and reconstruction, technology empowerment, and social mobilization. The Plan’s goal is to implement eight key projects, including a comprehensive natural disaster risk survey, IT-empowered comprehensive disaster reduction and risk management, a disaster emergency relief command system, a national disaster relief material reserve, and the launch of an environment monitoring and disaster reduction satellite constellation. These projects aim to address core issues in multi-hazard response, cross-agency collaboration, and cross-area cooperation, so as to improve our comprehensive disaster prevention and reduction capacity.

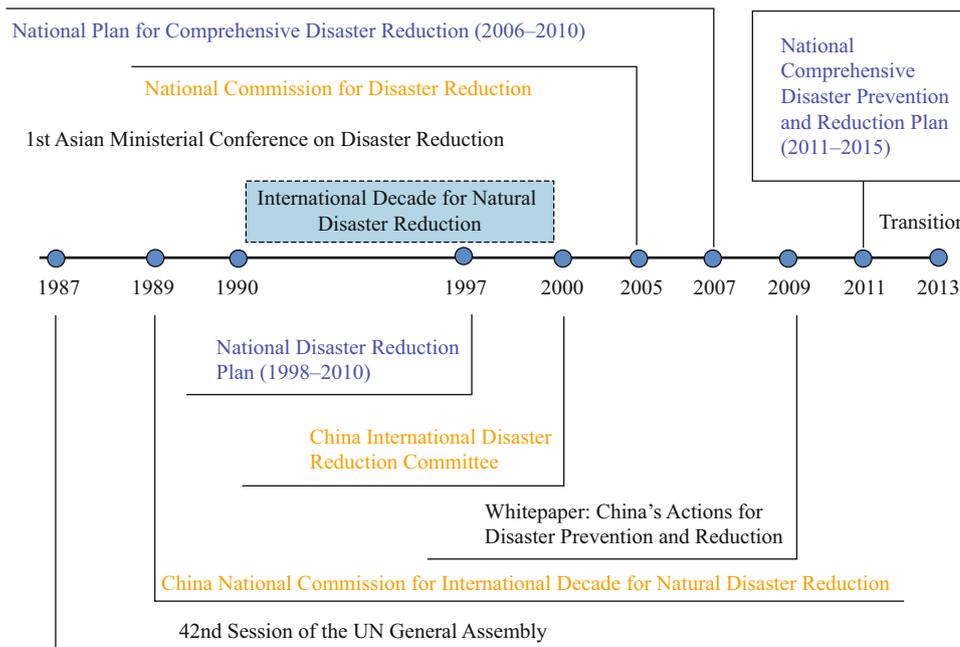


Figure 1. Progress of integrated disaster risk reduction in China

Since the Plan came into force, the China National Commission for Disaster Reduction has detailed to-do lists based on the planned tasks and key projects for the concerned areas and agencies. The Commission and relevant agencies are actively pushing for Plan implementation. The Commission Office communicates with related governmental agencies and coordinates their efforts for Plan project verification and implementation. Since 2012, China has appropriated special funding from the central government fiscal spending budget for comprehensive disaster prevention and reduction pilot projects. At present, planned projects are launched one after another. For instance, 4116 comprehensive disaster reduction demo communities have been set up. Emergency shelters have been designated in all rural and urban localities. The central government disaster relief material reserves are being established in 18 cities that are transportation hubs. China has successfully launched the small satellite constellation A, B, and C for environment and disaster monitoring and forecast. We have established the application system for satellite-based disaster reduction, and are adopting new technologies, such as satellite remote sensing, pilotless aircraft, and the BeiDou navigation and positioning satellite system, in disaster reduction and rescue.

Looking into the next stage, the Chinese government will make more efforts on Plan implementation with capital input and project initiation. We will carry out midterm reviews on Plan implementation, assess existing problems, and find measures for improvement, so that the tasks and projects are completed as planned.

2 Enhancing National and Community Level Integrated Risk Governance

Natural disasters are a common challenge around the world. To effectively improve the national disaster prevention and

coping capacity, the Chinese government further addresses the responsibilities of all levels of government, strengthens the disaster early warning network, promotes high-tech measures of disaster prevention and reduction, enhances the construction of a disaster preparedness system, and merges agendas of disaster reduction and sustainable development, in order to deal with global climate change.

Since the last session of the Global Platform on Disaster Risk Reduction in 2012, China has made more progress in national disaster prevention and reduction capacity building. The annual economic losses and number of deaths from disasters kept decreasing in the past two decades, as shown in Figure 2. Adhering to the principles of comprehensive disaster reduction, active disaster reduction, and disaster risk management, we have integrated disaster risk reduction and climate adaptation into the national and local sustainability agenda, and have built a national disaster reduction platform. Specifically:

(1) We have formulated and issued the new five-year national plan for comprehensive disaster prevention and reduction—the National Comprehensive Disaster Prevention and Reduction Plan (2011–2015), as well as a series of special project-oriented and industry-specific plans. We are also working on an overall national strategy of climate change adaptation.

(2) We have implemented organizational readjustments in the China National Commission for Disaster Reduction to improve the cross-agency collaboration mechanism, and build up disaster reduction platforms at the provincial, municipal, county, and community levels.

(3) We have increased investment in disaster prevention and reduction. A total amount of RMB330 billion has been allocated for disaster prevention and reduction from the central government fiscal spending budget. We are leveraging other important funding channels such as disaster insurance, finance, and charity.

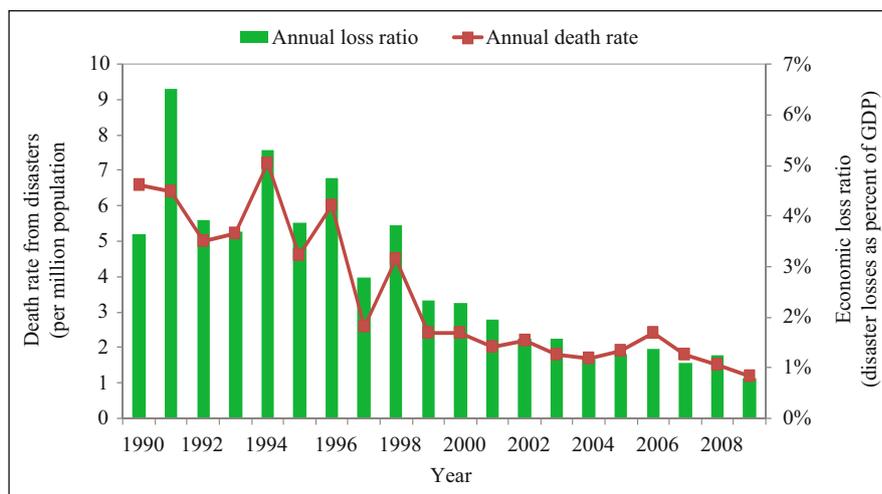


Figure 2. Loss ratios (economic losses from disasters expressed as a percentage of GDP) and death rates (number of deaths from disasters per million people) in China, 1990–2009. Data from the Wenchuan Earthquake in 2008 are not included. Source: Fang, Wang and Shi 2011.

(4) We have invested in disaster prevention and reduction infrastructure building, improved the natural disaster monitoring and early warning system, enhanced natural disaster risk governance, put in place key disaster prevention and reduction projects, and created 4116 comprehensive disaster reduction demo communities around the country.

(5) We have established mechanisms for long-term awareness enhancement among the people on disaster prevention and reduction. We propagate the national “Disaster Reduction Day” and the “International Disaster Reduction Day” to popularize disaster prevention and reduction knowledge. The Chinese government is working more closely with other countries, UN agencies as well as other international and regional disaster prevention and reduction organizations, to expand the country’s bilateral and multilateral disaster reduction and relief cooperation mechanisms.

3 Coping Effectively with the 20 April 2013 Lushan Earthquake with Scientific Support

On 20 April 2013, a magnitude 7.0 earthquake hit Lushan County in Sichuan Province. The earthquake intensity reached IX degrees, and the focal depth was 13 km. It caused huge life and property losses—196 people died, 21 were missing, 14,000 were injured, a large number of urban and rural houses collapsed or were damaged (including 1.43 million rural houses and 21.54×10^6 m² of urban houses), and local and regional infrastructural facilities were damaged to various degrees. The Chinese government immediately launched the emergency response after the disaster occurred. It prioritized the task of life saving, and established a command system for rescue and evacuation. On the day of the earthquake, 34,700 rescue professionals arrived in the area, 475 people were rescued out of the rubbles, 832,000 people were moved to safe zones, RMB1.5 billion were appropriated for disaster relief, 12,000 medical service staff were dispatched to the disaster area, and the needed materials arrived, including 92,000 relief tents, 217,000 blankets, and 2000 plus tons of food and drinking water.

The Sichuan provincial government was the hub for disaster management. They made overall arrangements, while the

related agencies under the central government coordinated efforts and provided support. Emergency rescue with scientific support were adopted for resource optimization. As a result, rescue professionals covered all disaster villages 72 hours after the earthquake. In the short span of 5 days, lifeline systems, such as transportation, communications, and electric power, returned to operation.

By late May, all injured people were well taken care of, basic subsistence materials were in place, and the evacuation was an initial success. The disaster area is on the right track of transitional relocation and post-disaster reconstruction.

After the Lushan Earthquake, the international community immediately sent their condolences and support to the Chinese government and people. Countries offered various forms of assistance. I would like to take this opportunity to express, on behalf of the Chinese government and Chinese people, our heartfelt gratitude!

Natural disasters are a common challenge to all human beings. The Chinese government is willing to join forces with the international community to deepen exchange and cooperation in disaster prevention and reduction. Our goal is effective disaster risk reduction; we want to focus our cooperation on such areas as natural disaster monitoring and early warning, information sharing, emergency rescue, scientific research, technology adoption, personnel training, and community disaster reduction practices. We support the UNISDR (United Nations Office for Disaster Risk Reduction) decision to integrate disaster reduction into the global development agenda; we welcome activities of the International Center for Drought Risk Reduction and the UN-SPIDER (United Nations Platform for Space-based Information for Disaster Management and Emergency Response) Beijing Office; and we are engaging actively in the formulation of HFA2. Together, we will make new contributions to global economic and social stability, healthy growth, and sustainable development.

Reference

Fang, W. H., J. A. Wang, and P. J. Shi, eds. 2011. *Integrated Risk Governance, Risk Maps and Network platform*. Beijing: Science Press (in Chinese).

Open Access This article is distributed under the terms of the Creative Commons Attribution License which permits any use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.