

Strengthening International Disaster Risk Reduction through Collaboration with China

Natural disasters hit developing countries particularly hard. Worldwide, the incidence and intensity of such disasters remain substantial. There were 6,873 natural disasters worldwide between 1994 and 2013, with 1.35 million lives lost (around 68,000 lives on average annually). Some 218 million people were affected by natural disasters on average per annum during this period. China's history of catastrophic and major natural disasters has led it to reform its disaster risk reduction (DRR) and disaster response systems. China is opening-up to international dialogue, cooperation and coordination regionally and globally. China's arrival on the international DRR landscape offers the international community new opportunities for closer policy cooperation with a particular focus on knowledge and skills exchange, international coordination and technical research collaboration.

DRR is a critical factor in meeting the challenges of sustainable development and human security. Natural disasters impact on all aspects of lives of populations, who are often heavily traumatised by their disaster experience. Worldwide, there were 375 reported natural disasters in 2015, resulting in almost 24,000 fatalities and around US\$71bn worth of damage. Some 168 of these disasters were in the Asia region. Reducing the risk of such disasters and providing well-coordinated and effective emergency response has become an international priority. What role, then, is China playing in international DRR today and how can closer cooperation be promoted? These questions will be explored by examining China's experience of earthquake disasters.

Natural disasters in China

China is at the high end of disaster risk and it experiences the whole range of disasters from floods, landslides and earthquakes, to typhoons, hail and drought, through to forest fires, sandstorms and severe snowstorms. In 2014, for example, China reported 40 natural disasters, the second highest number in the previous decade, with the country experiencing 15 floods and landslides, 15 storms, 8 earthquakes and 2 droughts.

Although China had this extensive historical record, weaknesses in its knowledge and capacity to evaluate risk, ability to provide effective emergency response and undertake post-disaster reconstruction were exposed by the 2008 Sichuan earthquake. Striking for two deadly minutes in

May, at least 69,000 people died, 374,000 were injured and 5–11 million were made homeless and five million buildings collapsed. In response, China has been reforming its DRR and response systems. This has seen a greater openness and willingness by China to collaborate with international organisations, governments, technical agencies and academic institutions to facilitate learning.

Chinese and German collaboration around DRR

Training projects led by the German Federal Ministry for Economic Cooperation and Development (BMZ) in collaboration with the China Earthquake Administration and National Institute of Emergency Management (NIEM) helped establish a Chinese integrated disaster response team with a rapid response capability. The projects were successful for two reasons. Firstly, because of a multi-stakeholder service provision that included the UN and Red Cross as well as German and Chinese agencies. Secondly, through a shift in training methods from being lecture-based to more practice-oriented with exercises and case studies, the participants 'learn how to react to acute disaster situations faster and in a more structured manner'.

China's approach to emergency response

China now has a substantial body of national law on emergency response and has been running a disaster reduction action plan between 2006 and 2015 setting out the aims, allocation of administrative responsibilities for all levels of government and operational requirements. The China National Committee for Disaster Reduction (NCDR) is the counselling and coordination structure operating under the State Council's Vice-Premier responsible for disaster issues. It is hosted by the Ministry of Civil Affairs. The NCDR acts as the 'national platform' and 'focal point' for coordinating emergency management and DRR measures across 34 member organisations, and the People's Liberation Army provides the operational emergency response to a natural disaster. Innovatively, a National Institute of Emergency Management (NIEM) was established by the State Council and based in the Chinese Academy of Governance, providing a focus for knowledge exchange, promotion of 'better practices' and training programmes and a focal point for international knowledge and skills exchange and cooperation.

There is a system of emergency management, whereby offices have been established at all tiers of government across China, coordinating training, exercises, facilitating greater information gathering and sharing, facilitating data evaluation and promoting disaster preparedness. The emerging system uses China's military as the primary emergency response agency. There is also a damage assessment and post-disaster relief and reconstruction process. Evidence taken in the field following the Lushan earthquake that occurred in Sichuan Province in April 2013 suggests that these initiatives were beginning to provide a better coordinated and more effective system.

Community-based participation in DRR

The 2008 Sichuan earthquake saw the emergence of officially sanctioned and encouraged community-based participation in China's DRR. The Central Government has promoted community-based disaster management (CBDM). This initiative is in line with the international community's evolving approach to DRR, with CBDM now a central

component of international strategies, most notably, that of the Sendai Framework established in 2015. By the end of 2012, there were over 1,200 such communities around China, and the Central Government's aim was to expand the number substantially. Central to the Government's Regulations on the Relief of Natural Disasters is an emphasis on village committees, community centres, business, civil society and the general population to participate in natural disaster relief efforts (Asia Foundation 2013). However, recent Chinese research identifies significant problems within the programme, including deficiencies in community resident participation, the quality of management organisation, disaster risk assessment methodology, NGO development, and safety culture cultivation.

Ongoing challenges

Despite significant progress, recent research by Chinese scholars demonstrates that challenges remain. The focus on the need for: (a) greater knowledge; (b) greater synchronisation with international standards and practices and integration of DRR with China's commitments to sustainable development and climate change amelioration; and (c) greater technical know-how. The body of Chinese research points to weaknesses in provincial and local communication (simply too many relief standards compared to other countries' information barriers and weaknesses in the collection of high-quality data). Chinese research also points to the need to build a closer understanding of socioeconomic factors and social science analysis into China's DRR.

China's participation in international efforts

Paralleling these domestic changes, China has also become a central participant in international DRR dialogue, policy coordination and operational practice. According to the Asia Foundation, 'China's experience responding to a wide range of severe natural disasters provides valuable insights for planning, response and mitigation strategies across the region'. China is not new to international DRR efforts, having collaborated with the International Strategy Committee for Disaster Reduction in establishing the International Centre for Drought Risk Reduction in Beijing in 2007 and, since 2008, joining South Korea and Japan in a trilateral dialogue process of

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Sendai Framework for Disaster Risk Reduction 2015–2030

What is the Sendai Framework?

The Sendai Framework was adopted by UN Member States on 18 March 2015 at the Third UN World Conference on Disaster Risk Reduction in Sendai City, Japan. Signed by 187 countries, the Framework is the successor instrument to the Hyogo Framework for Action (HFA) 2005–15: Building the Resilience of Nations and Communities to Disasters. The Framework differs from the HFA in a number of important ways:

- An emphasis on disaster risk management rather than disaster management;
- The setting of seven global targets and four priorities for action;
- Reduction of disaster risk as a primary outcome through the prevention of new risk, reduced existing risk and strengthened resilience;
- Provision of a set of guiding principles, including the primary responsibility of states to prevent and reduce disaster risk.

Seven global targets

1. Substantially reduce global disaster mortality by 2030, aiming to lower the average per 100,000 global mortality rate in the decade 2020–30, compared to the period 2005–15;
2. Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 in the decade 2020–30;
3. Reduce direct disaster economic loss in relation to global gross domestic product by 2030;
4. Substantially reduce disaster damage to critical infrastructure and disruption of basic services, by developing resilience by 2030;
5. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020;
6. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030;
7. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

Four priority areas

1. Understanding disaster risk;
2. Strengthening disaster risk governance to manage disaster risk;
3. Investing in disaster risk reduction for resilience;
4. Enhancing disaster preparedness for effective response and to 'build back better' in recovery, rehabilitation and reconstruction.

Implementation

The United Nations Office for Disaster Risk Reduction (UNISDR) has the principal institutional 'ownership' of, and responsibility for, the Framework. The primary responsibility for implementation rests with states; however, a central role is played by the Global Platform for Disaster Risk Reduction and by regional platforms, for example the Asia Ministerial Conferences on Disaster Risk Reduction.

collaborative disaster management. In October 2014, China and ASEAN signed a Memorandum of Understanding on Disaster Management Cooperation. Under the agreement, China is providing US\$8.1m for ASEAN capacity-building to improve its response to regional disasters. China is also centrally involved in the work of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) and was proactive in setting up its Beijing Office in 2011. China has also signed up for the principal

DRR agreement, the Sendai Framework for Disaster Risk Reduction 2015–2030.

At the Sendai conference, China's official representative expressed the wish to strengthen its DRR international cooperation in three ways: strengthening international and regional information exchange and sharing; improving the international coordination mechanism in responding to large-scale natural disasters; and promoting key technology research cooperation of disaster reduction.

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Policy recommendations

Knowledge and skills exchange

National and international policies should promote efforts to:

- Build on the existing international collaboration with NIEM, with a wider range of international DRR agencies seeking to form working relationships with the emerging knowledge hub. There is also great potential for knowledge exchange through the European Union's Disaster Risk Management Knowledge Centre (DRM).
- Develop the existing triangular cooperation such as the China–Japan–Korea cooperation, that involves both developing and developed countries or multilateral organisations.
- Respond to China's desire to strengthen international knowledge transfers through enhanced data-sharing related to disaster anticipation and resilience, for example through Risk Perception Analysis, to strengthen our understanding of how local cultures identify and manage risk. Risk perception drives how people will behave and manage a particular risk.
- Mainstream international private–public sector DRR cooperation with China, broadening and deepening knowledge-sharing practices such as community-censused projects led by the Asia Foundation that laid the foundation for the Chinese government's community DRR participation policy we noted above.
- Ensure that the knowledge community is inclusive, emphasising the central importance of public disaster awareness, participation and preparedness through civil society and community participation. This process can build upon initiatives such as the November 2015 UNDP 'Sharing and Learning on Community Based Disaster Management in Asia Project Workshop' held in Chengdu, China, organised with the UK's Department for International Development and China's National Disaster Reduction Centre.
- Focus on Risk Perception Analysis as a core element in knowledge-exchange. As the European Forum on Disaster Risk Reduction has noted: 'risk perception analysis is the first step in understanding how local cultures identify and manage risk. Risk perception drives how people will behave and manage a particular risk. The inclusion of social sciences and their analytical tools in the national platforms is crucial to have a complete vision of the understanding of risk'.

International coordination

- DRR policy coordination in China needs to prioritise the Road Map for the Implementation of the Sendai Framework to facilitate effective, coordinated implementation strategy and operationalisation and to work through specific functional initiatives flowing from Sendai, such as the Bangkok Principles for the implementation of the health aspects of the Sendai Framework.
- Europe is well-placed to promote further coordination through its existing range of networks and programmes, including the EU Disaster Prevention Expert and Loss and Damage Expert Groups and the Global Flood Partnership, Global Informal Tsunami Monitoring System and Global Disasters Alerts and Coordination System.
- Policy coordination is usefully prompted through engagement with China's National Forum on Comprehensive Disaster Risk Reduction and Sustainable Development as well as with its national DRR and emergency response agencies and civil society organisations.

Technological research collaboration

- The Sendai Framework emphasises the importance of technical collaboration. Primary policy pathways include the 2015 Tokyo Statement on new science and technology cooperation, UNISDR Science and Technology Conference on the implementation of the Sendai Framework as well as the potential for inter-regional collaboration through the EU DRM Knowledge Centre's annual scientific seminar.



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Further reading

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Credits

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