



Sino-German Disaster Risk Management Project



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Sino-German Disaster Risk Management Project

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Summary

The People's Republic of China is one of the most disaster prone countries in the world. It is affected by numerous hydro-meteorological and geological natural hazards, industrial accidents and threats to public health. All these could have a severe impact on people's lives and well-being, as well as on the economy and social structure of this modern and fast developing society.

The Chinese government recognised the need for reforms in regard to disaster risk management to enable it to face the new challenges. Considerable efforts have been made over the past decade to improve the existing system. The establishment of the national Emergency Management Office (EMO) of the State Council in 2006 as an operational axis and similar institutions on all administrative levels were part of the government's strategy to tackle the lack of a coordinating body. Furthermore, the constitution was adjusted and subsequently an Emergency Response Law was passed in 2007. The development of functional and sectoral contingency plans for all administrative levels was accelerated.

However, it became apparent in the wake of the Wenchuan earthquake in May 2008 that the entire disaster management process requires further improvement. Gaps in the vertical and horizontal coordination and communication delayed the assistance measures for the disaster affected population. Thus, this tragic event triggered the ambition to evaluate the feasibility of applying experience proven international standards in disaster risk management in the Chinese context.

This 'Sino-German Disaster Risk Management Project' was initiated following a request from the Ministry of Commerce on behalf of the State Council of the People's Republic of China to the Federal Republic of Germany in summer 2008, to assist in optimising the disaster risk management system in China. The German Federal Ministry for Economic Cooperation and Development (BMZ) responded to the request immediately. As the commissioner, it designated the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH as the implementing partner.

In March 2009 the project eventually started and aims to support the application of a more coherent, effective and efficient disaster risk management system. Thereby, it

complements the ongoing efforts of the Chinese government. The start of the project coincided with the foundation of the National Institute of Emergency Management (NIEM) at the Chinese Academy of Governance (CAG), yet another milestone in the government's endeavours to strengthen the existing capacities. CAG/NIEM became the prime project partner.

The project's main approaches have been identified through initial contacts with main stakeholders and fact finding missions in China. They are based on respective inputs and needs and striving to jointly develop tailor made concepts. A core aspect is the advice on improvement and standardisation of the existing disaster risk management system, targeting all administrative levels, to render it more operational and aligned to international standards and experiences.

Reasonable starting points to achieve this overall goal are: 'Training of Trainers' (ToT) for NIEM and Schools of Administration academics leading to specialised exercise based training on emergency management for Chinese government officials, the development of 'First Response' training as well as risk assessment and contingency planning in pilot areas. Furthermore, the project serves as a platform to facilitate networking and experience sharing amongst actors both within China as well as internationally, bringing together related stakeholders and experts in disaster risk management.

The 'Sino-German Disaster Risk Management Project' is jointly implemented by the Chinese Academy of Governance (CAG), the National Institute of Emergency Management (NIEM) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

The direct project partners include the Emergency Management Office of the State Council (EMO SC) of the People's Republic of China, the China Earthquake Administration (CEA), the provincial and municipal Emergency Management Offices, the provincial Schools of Administration, the German Federal Ministry of the Interior (BMI), the Federal Office of Civil Protection and Disaster Assistance (BBK) and the Federal Agency for Technical Relief (THW).



Figure 1: Capacity Development, Network Building, Experience Promotion
- '2010 International Conference on Emergency Management' in Beijing



Figure 2: Training of Trainers
- National Institute of Emergency Management



Figure 3: First Responders
- Technical training programme in Germany

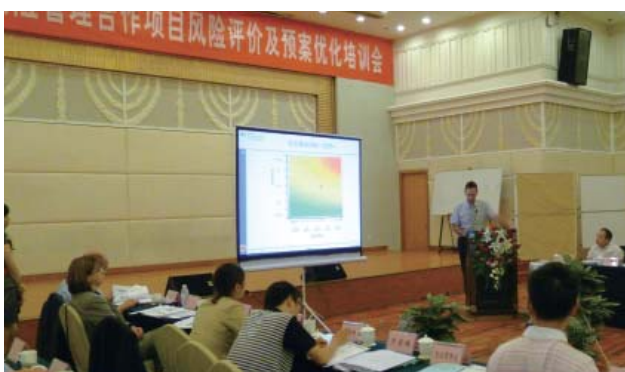


Figure 4: Risk Assessment and Contingency Plan Optimisation
- Workshop in Chongqing

Project Partners at a Glance

National Institute of Emergency Management of the Chinese Academy of Governance (CAG/NIEM)

Emergency Management Office of the State Council (SC EMO)

Ministry of Finance

Ministry of Commerce

Ministry of Public Security

Ministry of Civil Affairs

Ministry of Health

State Administration of Work Safety

National Earthquake Response Support Service of the China Earthquake Administration (CEA/NERSS)

Provincial and Municipal Emergency Management Offices

Provincial Schools of Administration

National Committee of Disaster Reduction (NCDR)

National Disaster Reduction Center of China (NDRCC)

Federal Ministry for Economic Cooperation and Development (BMZ)

Federal Ministry of the Interior (BMI)

Federal Office of Civil Protection and Disaster Assistance (BBK)

Federal Agency for Technical Relief (THW)

German Committee for Disaster Reduction (DKKV)

Asian Development Bank (ADB)

Asian Disaster Preparedness Center (ADPC)

Asia Foundation

European Union (EU)

Red Cross Movement

United Nations Development Programme (UNDP)

United Nations International Search and Rescue Advisory Group (UN INSARAG)

1 The Project Background - Complementation of Ongoing Efforts

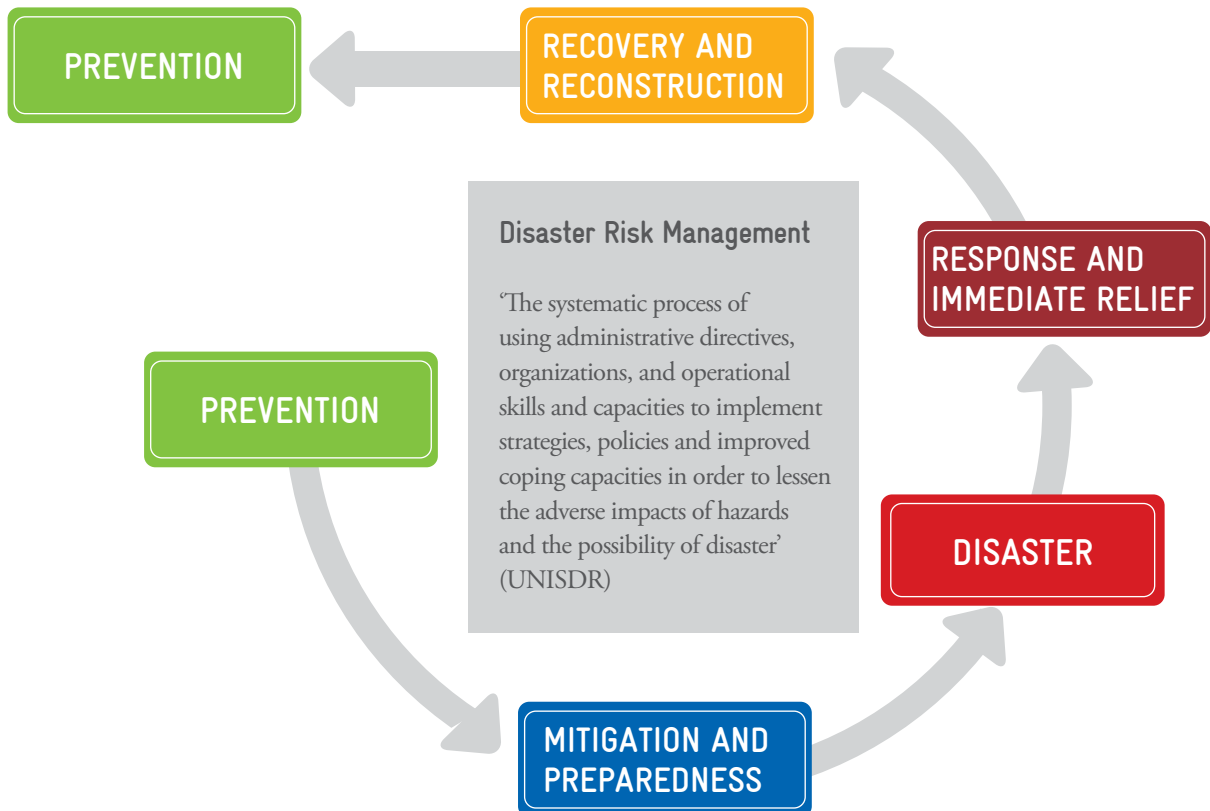
Every year, China has to cope with various natural disasters on its vast and diverse territory covering different climatic zones and featuring many land forms. Global climate change is likely to exacerbate the frequency and severity of momentous events. Industrial accidents and public health emergencies have become an increasing threat in light of fast economic development and urbanisation.

In regard to disaster risk management, China faces new challenges as today's complex society and critical infrastructure is much more crisis sensitive and vulnerable compared to 20 years ago. Disasters have a much bigger impact on modern life and fast growing economies, as both are accompanied by increased fragility. It is therefore vital to critically review the systems and coping mechanisms in place and adapt them accordingly, in order to mitigate the risk for people and property.



Figure 5: Beijing metro passengers during the SARS crisis

The SARS crisis in 2003 as a major public health emergency prompted the Chinese government to start reforming the disaster risk management system. Over the years, numerous natural disasters such as floods, earthquakes, landslides, droughts and typhoons have occurred in China. Serious accidents concerning industrial sites and infrastructure showed the need for continuous adaptations in the process of disaster risk management.



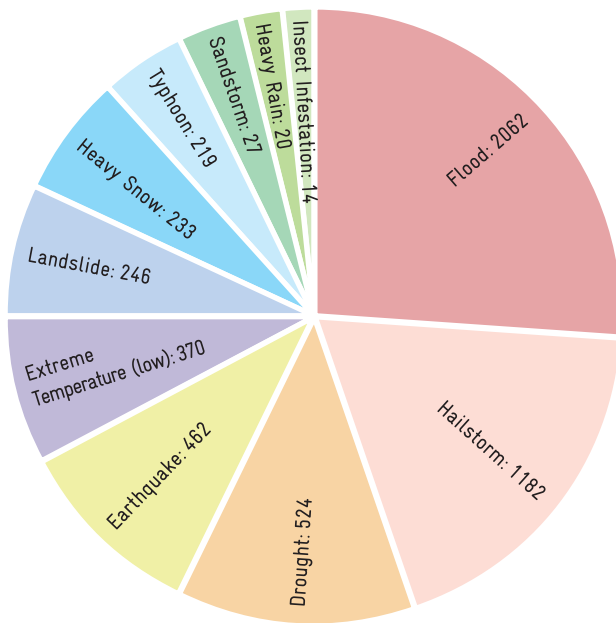


Figure 6: Types and frequencies of main hazards in China (January 2008 to October 2011)

Source: National Administration of Surveying, Mapping and Geo Information

In 2008 alone, the sudden onset of winter in southern China caused substantial difficulties; a serious train crash shook Shandong Province, several floods and typhoons struck in different regions. The Wenchuan earthquake on May 12 claimed over 87,000 lives, left incredible destruction and over 45 million people affected. The Chinese government immediately launched one of the largest relief

operations in the country's history. It swiftly passed national emergency measures and directed all necessary resources to the devastated regions. The numerous parties involved in the response worked tirelessly and effectively. It goes without saying that the colossal size of the tragedy posed an enormous challenge to both the authorities and teams on the ground alike. Any disaster, but in particular a disaster of this magnitude, requires coordinated response mechanisms, clear communication lines and experienced decision makers who are able to react quickly and appropriately based on timely and structured information.

Chinese authorities and institutions involved in the Wenchuan earthquake response have subjected their own activities to a self-critical examination. No matter how great the achievements, nor how admirable the response operation in its entirety was perceived globally, the government's own evaluation revealed deficits in the aforementioned core competencies of disaster management such as coordination and communication. Decision makers on various administrative levels were lacking the necessary experience to handle a large-scale disaster in a structured and transparent manner. Significant problems were encountered in managing the assistance, leading to delays and/or duplications of relief provision to the affected population. Moreover, the existing emergency plans on various levels of administration proved to be inconsistent and were not based on systematic risk assessment.



Figure 7: Extreme temperature in southern China, January/February 2008

As a result, the Chinese government recognised the need for further improvement of the disaster risk management system. The time had come to make use of international experiences and look closely into recognised standards in this field. It is not a matter of contemplating an entirely different structure of the Chinese system or even establishing yet another administrative or operational entity. Rather, it is far more essential to clarify the division of work and define responsibilities within the given framework to rapidly achieve perceptible improvements. The current disaster risk management system in China has evolved over the years as

a result of reforms and reflects in its complexity the internal organisation and functioning of the state structure of the People's Republic of China. Hence in the short term it is not a call for reorganisation of the administrative umbrella as such, but for developing ways to apply standardised processes, innovative methodologies, as well as a clear command structure. The 'Sino-German Disaster Risk Management Project' contributes to the adjustment process by conveying methods and perspectives that open up new paths. The main focus is to develop local solutions with reference to international standards in close cooperation with the Chinese partners.



Figure 8: Devastated city of Beichuan after the Wenchuan earthquake



Figure 9: Memorial for the earthquake victims

2 Disaster Risk Management in China – A Complex Context Briefly Outlined

The various authorities and institutions concerned with disaster risk management in China are facing an enormous challenge when it comes to initiating fast and effective response activities.

Due to the sheer number of actors involved, a well functioning coordination mechanism, communication structure and clear chains of responsibility are of prime importance. This can only be established, tested, further fine tuned and trained in the prevention phase to be best prepared for when a disaster strikes. The actual training of different processes in disaster management enables

the numerous concerned parties to gain experience in a simulated setting rather than in times of emergency when one has to work under immense time pressure.

It proved to be virtually impossible to illustrate the current disaster risk management system in China in a simple organisational chart as too many entities with either horizontal or vertical interfaces are involved. However, the figure below may provide an impression of the complexity of interactions. The simplified example shows the national command system structure in response to the Wenchuan earthquake.



Figure 10: National command system structure for the Wenchuan earthquake
Source: Asian Development Bank, Technical Assistance Consultant's Report, October 2008



Figure 11: Chinese Academy of Governance (CAG), Beijing

This chapter does not claim to be exhaustive and does not cover the extensive range of bodies and entities engaged in, directly associated with or providing support for disaster risk management in China. The selection of actors explicitly mentioned in the following summary relates to their direct link with the ‘Sino-German Disaster Risk Management Project’.

The newly established National Institute of Emergency Management (NIEM) at the Chinese Academy of Governance (CAG) provides policy advice to the State Council and its Emergency Management Office respectively. The input given to both the political and operational level derives from research activities in the field of disaster risk management in China and on international level, aiming to draw lessons from recognised standards and successful experiences.

NIEM is the teaching and training centre in the field of disaster risk management for government officials in China. It aims to position itself as an international exchange and cooperation centre. Being the primary partner of the ‘Sino-German Disaster Risk Management Project’, it could benefit

in its establishment phase from direct support through German experts and international contacts. In the provinces, the respective Schools of Administration are the competent institution for disaster risk management related training to local government officials. Like CAG on national level, it also provides policy suggestions and acts as a consultant to the local government.

The State Council Emergency Management Office (EMO SC) was established in April 2006. Its position directly under the State Council demonstrates the political significance of disaster risk management and the attached value by the Chinese government. The State Council EMO works as an operational axis, takes charge of the daily work of emergency management, preparedness and prevention, responds to emergencies, collects real time information and harmonises the related departments in case of disaster. As such, it is the main coordinating authority. Corresponding EMOs have been gradually established on provincial, municipal and county level with similar tasks, playing an important role in cross-departmental coordination.

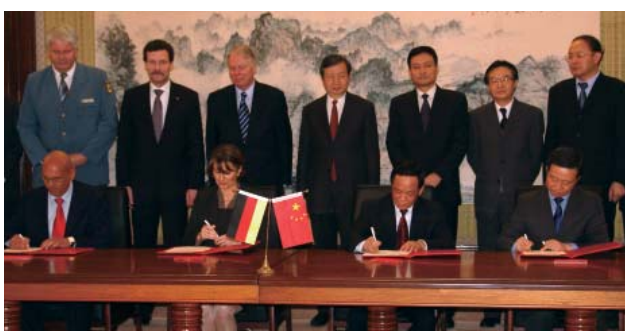


Figure 12: International exchange and cooperation



Figure 13: Training room at the National Institute of Emergency Management (NIEM)

Various ministries and authorities form an integral part of China's emergency management system, amongst them the Ministry of Civil Affairs (MCA), the Ministry of Public Security, the Ministry of Health and the State Administration of Work Safety. The MCA runs the General Office of the National Committee of Disaster Reduction (NCDR) which acts as the focal point for the implementation of the UN International Strategy for Disaster Reduction (UNISDR) and international cooperation on disaster management.

The China Earthquake Administration (CEA) becomes the operational entity on national level if an earthquake occurs. It serves as the command centre of the State Council and manages the emergency response of earthquake disasters. Furthermore, it formulates and implements guidelines, policies and standards regarding earthquake preparedness and mitigation. The National Earthquake Response Support Service (NERSS) as part of the CEA is, in addition to other tasks, responsible for comprehensive training in emergency rescue.

In disaster response, the People's Liberation Army, forces of the People's Armed Police like the fire brigade; reservists as well as policemen play a vital role and often act as task forces. Finally to complete the picture, the Red Cross Society of China, non-governmental organisations, social

groups at the grassroots level and volunteers are to be taken into account as further relevant actors in disaster risk management in China.

This brief outline of the extensive range of stakeholders and the complexity of the disaster risk management system in China demonstrates that it was of vital importance for the 'Sino-German Disaster Risk Management Project' to develop targeted starting points. Apart from the professional support to NIEM in its establishing phase as one of the project's key components, designated pilot areas were chosen for the implementation of further project activities on provincial and municipal level.

'China's disaster risk management system features central leadership, departmental responsibility and disaster administration at different levels with major responsibility on local authorities.'

China's Actions for Disaster Prevention and Reduction
White Paper published by the Information Office of the State Council of the People's Republic of China, May 2009



Figure 14: Chinese Academy of Governance, '2010 International Conference on Emergency Management'

3 Following International Standards – Finding Local Solutions

The common denominator of the various activities of the ‘Sino-German Disaster Risk Management Project’ is the development of solutions suitable for the context in China in joint cooperation with the Chinese partners. Generally, international standards and commonly accepted methods in disaster risk management need to be analysed in view of the individual context of the country they shall be applied in. The German context for instance brings out solutions tailor made to the system in Germany. The project used examples from the German context and presented them to the Chinese partners in order to demonstrate methods of application. The next step for the project was then to support in developing adjustment paths and advise on processes, strategy, methodology and potential activities.

The overall project goal is defined as follows:

‘The Chinese administration applies a more coherent, effective and efficient system for disaster risk management on different administrative levels.’

Two components that were formulated are aimed to optimise the national disaster risk management system and to advise on both the development of the National Institute of Emergency Management (NIEM) as well as on modular training for disaster risk management.

In the early stages of the project in 2009 the focus lay on support to NIEM. Establishing itself as the think tank and policy advisor to the Chinese government, as well as being the national teaching and training centre for disaster risk management, process consulting and technical advice through German experts was deemed a priority. CAG/NIEM has a key role for the project as it is directly linked to the State Council EMO. This link is an indispensable factor for the envisaged structural improvements and capacity development.

NIEM was also the entry point for the Training of Trainers (ToT) concept. A new training methodology was introduced to the academics and jointly tailored to their requirements.

Training of Trainers (ToT)

21 academics from CAG and from the Schools of Administration in Beijing, Tianjin, Hebei, Sichuan and Qinghai are fully involved in ToT training (supported by BBK) in both Germany and China.

Using the German exercise based teaching methodology, the ToT concept aims to improve effectiveness in emergency management training. Successive training modules - seven in total - build on one another and interlink different elements. The core trainers are now multipliers and are supporting trainees (government officials trained at CAG and at provincial Schools of Administration) to improve their emergency management skills through table-top scenarios as well as simulation and staff exercises.

Furthermore, the academics will submit a whole set of policy suggestions based on analysis of the Chinese disaster risk management system, taking comparisons to the German system into account.



Figure 15: Coordination group of the administrative crisis unit



Figure 16: Planning the briefing

Exercise Based Learning – Acquired Skills Put Into Practice

In October 2011, the 6th training module for the 21 academics was held by German experts from BBK. This time the focus lay on planning an exercise for an administrative crisis unit comprising CAG course participants. It has become standard procedure to include a training session on disaster risk management in regular CAG courses. The participants were role-playing the various unit functions. Criteria for choosing a table-top scenario, didactic questions, definition of learning goals and evaluation methods to facilitate a constructive dialogue were the main topics. They were put into practice when the academics conducted the final staff exercise at the end of the seminar.

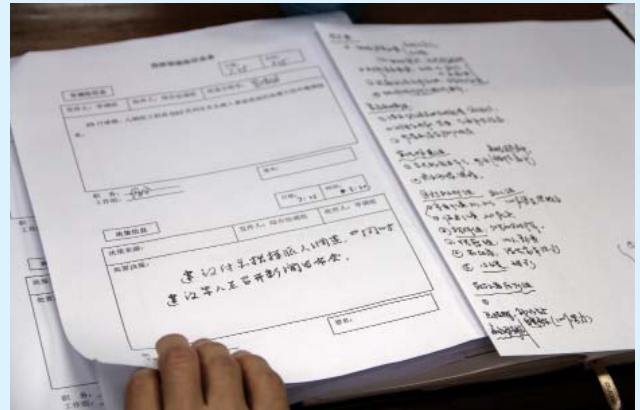


Figure 17: Working documents



Figure 18: Introduction to the exercise – Crisis unit structure and interfaces

Through CAG/NIEM the project initiated the creation of platforms for various stakeholders in disaster risk management within China and internationally. It uses workshops and specialist meetings to focus on sharing information and experience. The agenda items of the fortnightly held 'Forum on Emergency Management' at CAG/NIEM deal with different topics each time. Since the first forum took place in May 2010, in total 320 disaster risk management experts from the Chinese government, academic institutions and private enterprises have been participating. International experts have also been attracted by the platform and benefit from mutual exchange of information.

Each year, to support motivation and new initiatives, the 'Sino-German Disaster Risk Management Project' initiates a follow up forum linking all those engaged in the various project areas.

Follow Up Forum in Nanning



Figure 19: Disaster risk reduction challenges confronting the region

In July 2011, the 3rd consecutive annual follow up forum took place. As in the previous years, the 'Sino-German Disaster Risk Management Project' project invited various players involved in the different project activities.

Amongst many other contributions aiming to share valuable experiences, the EMO director of Guangdong Province introduced the Pearl River Cooperation Project to the participants. The presentation sparked great interest as cross-regional cooperation in disaster risk management becomes more and more important. It is vital for preparedness and response to see the bigger picture and establish cooperation and coordination mechanisms between provinces, across sectors and beyond one's own responsibilities.

Capacity Development, Network Building, Experience Promotion

41 vice mayors, 15 EMO directors, 39 vice directors of provincial Schools of Administration and 54 academics of national and local Schools of Administration participated in training programmes in the CAG and in German partner institutions. The training curricula include the structure of national security, contingency planning, crisis communication and decision making, crisis unit structure and volunteer system. The trainees established a communication network from central to local level. The related government departments, academic institutions and international organisations are fully involved in the project activities. Bi-weekly forums organised by CAG/NIEM provide an information sharing platform for Chinese emergency management experts. Furthermore, annual follow up forums are initiated by the project in the interests of promoting learning from and with one another, and in order to intensify cooperation and networking across all administrative levels, as well as across the regions. The '2010 International Conference on Emergency Management' opened the door for Chinese researchers and decision makers to the international level of disaster risk management.



Figure 20: Opening speech – State Councillor and Secretary General of the State Council Mr. Ma Kai

The ‘2010 International Conference on Emergency Management’ in Beijing brought 400 participants from 21 nations together, amongst them high ranking decision makers and experts. For the first time a conference on disaster risk management in China was jointly organised by all relevant ministries, institutions and authorities. In his opening speech, the State Councillor and Secretary General of the State Council, Mr. Ma Kai, reiterated the importance of experience sharing and cooperation in the field of disaster risk management and encouraged the participants to take this “golden opportunity” to further enhance and foster joint efforts.



Figure 21: Different panels covering various topics

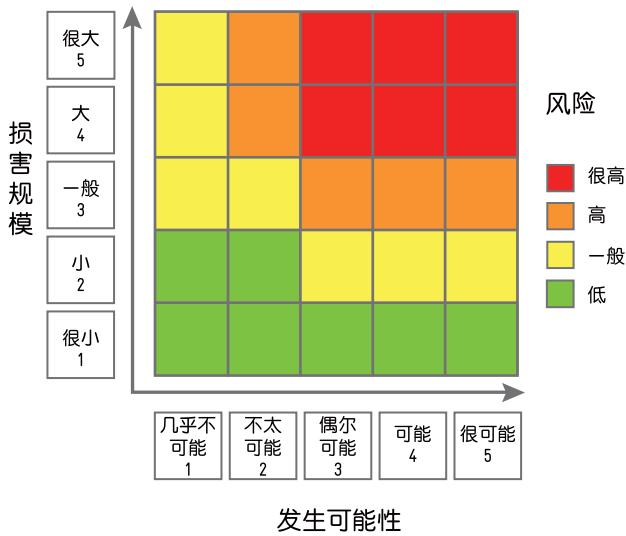


Figure 22: Risk assessment matrix in Chinese

The international conference, but also various studies, analyses and technical dialogues identified risk assessment and emergency plan optimisation as a critical element for a more operational and efficient disaster risk management system in China. In accordance with CAG/NIEM, the pilot provinces of Guangdong and Chongqing were selected for risk assessment and contingency planning. The review of existing emergency plans was identified as a burning issue by the Chinese partners. The local emergency plans are now subject to revision and shall in future be based on a detailed risk assessment for the respective region. Thereby, a standardised analytical process is being applied that leads to transparent, comprehensible and comparable results. This analysis forms the basis for the new emergency plans. Moreover, it is foreseen to test them in practical simulations for coherence and proper functioning. The entire process, if seen as successful by the national level decision makers, could serve as a national guideline in the future.

Risk Assessment and Contingency Plan Optimisation

More than 400 government officials from Shaanxi, Jiangsu, Chongqing and Guangdong participated in the emergency management forums provided by the ‘Sino-German Disaster Risk Management Project’. Being the selected pilot areas by CAG for risk assessment and contingency planning, Shenzhen and Heyuan City of Guangdong Province and Jiulongpo District of Chongqing Municipality conducted a series of activities (workshops, discussion forums, advisory groups). A study trip to Germany and neighbouring countries with particular focus on the methodology of risk assessment and subsequent contingency plan optimisation was organised for 14 government officials. They could gain valuable insights in the local application of the standard methodology. In the pilot areas, more than 100 participants including local EMO and government officials, as well as Schools of Administration academics joined the training activities - followed up by BBK experts. The acquired knowledge on the methodology was adapted and a detailed risk assessment was carried out in the pilot areas. The locally established risk management systems will run trial periods and undergo revisions based on timely evaluation of the exercises. Thus, the contingency plans can be optimised while making continuous use of the project’s expertise. The Chinese central government level (NIEM) participates closely in the activities in the selected pilot areas. The valuable experiences and results on local level could pioneer standard operating procedures regarding the national risk management system (risk identification, analysis and evaluation) and the process of contingency plan optimisation.



Figure 23: Risk assessment training

The development of practical teaching handbooks tailored to the Chinese system on exercise based training, risk analysis methodology and contingency planning, is supported through the project. These publications have promising potential to be used all over China on all administrative levels.

First Responders

'Building the first tier of local capability involves the training and development of existing local emergency services and community responders to meet the needs of the affected population at the onset of the incident. Their role at the initial phase of an incident is that of:

- Assessing the nature and scale of the incident
- Rescue and basic casualty care in the initial stages of a collapse incident
- Providing information to domestic decision-makers about the event
- Requesting the appropriate resources required to successfully complete the rescue phase

It is envisaged that first responders will typically be personnel working in the local community, or staff of local government organisations tasked with emergency management or response. For example; local police, medical staff or fire fighters, government workers or members of volunteer organisations.' (UN INSARAG)



Figure 24: First responder training in Sichuan Province

The concept of multipliers generally plays an important role for the project activities. The earthquake prone province of Sichuan is the project's pilot area for the so-called 'First Responders' training. The method applied originates from the International Search and Rescue Advisory Group (INSARAG) whose secretariat is located with the United Nations in Geneva. INSARAG is a network of disaster prone and disaster responding countries and organisations dedicated to urban search and rescue and operational field coordination. It developed a methodology for first responders in search and rescue with a focus on earthquake disasters. Using this methodology, the project initially targeted about 200 personnel from departments of public security, fire brigade, public health and government administration. Standards and techniques were imparted to the trainees in practical exercises with the ultimate goal of knowledge dissemination at grassroots level.

First Responder Training

The 'First Responder' pilot training courses in Sichuan Province were highly appreciated by the trainees. In total, more than 200 participants from the departments of public security, fire brigade, public health and government administration, as well as numerous volunteers took part. Those 200 initial participants are now disseminators of the acquired knowledge and skills in their communities, municipalities and institutions respectively. They have so far trained more than 2000 other core staff in different locations, 400 of which have received not only theoretical training, but were involved in practical coordination exercises. Eventually, in each location trained first responders will be enabled to organise relief activities in a standardised manner immediately after a disaster has struck.

A more technical approach is adopted in Tianjin. The government of the Municipality asked NIEM and the project for advice on how to improve coordination and integration of relevant actors. Gaps were jointly identified in the initial response capacity to disasters. Furthermore, the coordination process was not standardised. Thus, here the project's emphasis is on raising the technical capacities in first response and developing coordination standards.

A comprehensive technical emergency response training programme for administrative and technical staff from Tianjin was conducted in the training centre of the Federal Agency for Technical Relief (THW). In a joint planning workshop the curriculum for the six week course was specifically developed for the Chinese partners, successfully matching their training requirements with the possibilities that the THW institution could offer. The trainees who received hands-on training covering methodical and didactical issues are now multipliers for emergency response training conducted in Tianjin. The trainees explored the feasibility of using various technical elements from the German training and have been implementing them in the local context.



Figure 25: Technical emergency response training programme in Germany

First Response Team

In cooperation with Tianjin EMO and Tianjin School of Administration (TSA), the 'Sino-German Disaster Risk Management Project' is supporting the Tianjin Fire Brigade to establish their 'First Response Team'. A technical emergency response training programme with THW in Germany was jointly designed for the selected 17 fire brigade officials, TSA academics and Tianjin EMO officials. The trainees have now become the future trainers to provide and promote the training programmes to the Tianjin Comprehensive Relief Team and to other first response teams in order to improve their emergency response capacities. Through establishing a set of standard operating procedures, the project aims to improve the capacity of commanding, organisation and co-response for relief teams. Moreover, policy suggestions on standardisation adapted to the Chinese context will be submitted to the central government to promote Tianjin's experience throughout China.



Figure 26: First Response Team - Tianjin fire brigade

Facts and Figures

- 56 new multipliers from 12 provincial and 33 municipal Schools of Administration have received ToT from the core trainers at CAG/NIEM, and will now be conducting exercise based training in their respective institutions.
- In various provinces - for example in Shandong, Guangxi and Tianjin - new courses and facilities for emergency management training have been established in the respective Schools of Administration. Crisis unit exercises are being conducted using an exercise based training methodology.
- In eight provinces, NIEM has initiated the establishment of training bases for emergency management within the respective provincial Schools of Administration.
- The provincial and municipal Schools of Administration academics who participated in study trips to Germany have brought their knowledge back to their institutions. More than half of them could already introduce new teaching methodologies. They have been adapting acquired information on systems, standards and methods used in Germany to their individual context.
- Tianjin School of Administration has initiated the so-called 'East-West-Cooperation', and conducts emergency management training courses for Schools of Administration officials and academics from Qinghai, Xinjiang, Ningxia, Gansu and Sichuan.
- The municipal EMO in Chongqing planned and conducted a large scale emergency exercise in July 2011 with more than 2000 participants. In total, 22 teams and 191 institutions were involved in 5 different scenarios that were happening in parallel. All entities of the Chongqing emergency management system were activated, with the vice mayor being the head of the administrative crisis unit. Emphasis was put on coordination mechanisms and decision making processes.
- The vice mayor of Yiyang in Hunan Province used his knowledge acquired during a study trip to Germany to conduct practical staff exercises, involving all relevant bodies for emergency management in Yiyang.
- CAG/NIEM's expert groups for policy advice presented their interim reports on 18 different disaster risk management related topics in May 2011. The finalised reports will form the basis for a package of policy suggestions to the State Council.
- The snowball effect of the first responder training in Sichuan province has reached more than 2000 core staff in different locations which are now familiar with a standardised approach to response activity organisation and coordination.

4 Factors for Success

The various project activities in all target areas largely focus on systemic advice and research whilst taking into account practical examples and experiences. The implementation oriented exercises are critically evaluated by all actors involved and the concept of ‘lessons learnt’ is considered useful. The willingness to learn from mistakes and to recognise and grasp these as opportunities for improvement leads to visible results and tangible progress. Successful experience at the end of a process that involves trial and error, and thus leads to the gradual elimination of system weaknesses and inconsistencies is a sound foundation for policy suggestions. CAG/NIEM closely accompanies the activities in the pilot areas and uses the outcomes for policy advice to the State Council.

The project provides a platform through workshops and discussion forums and thus brings together stakeholders across both the vertical and the horizontal structures.

Participants appreciate the comprehensive experience sharing opportunities and create and reinforce cooperation networks.

In the international context, the project encourages transfer of experience and tying of links through fact finding missions and study trips. Chinese partners benefit from professional programmes during their visits to Germany, each time covering different elements of disaster risk management. German experts specially invited to China could gain a better understanding of the challenging Chinese context. Several delegation visits allowed the Chinese officials and academics from different administrative levels to get first hand insights and establish direct contacts.



Figure 27: Project areas and activities – An overview

The selected visiting programmes aimed to demonstrate in an exemplary way the application of disaster risk management systems in Germany, Austria and the Netherlands. Amongst other related issues, introduction to risk management and contingency planning processes (for both the private and public sector), to crisis management, civil protection systems and volunteer management was on the itinerary. Comparable standards are equally applied, yet the adaptation to the different structures in the respective countries varies. The delegation members could thus examine international standards and their practical implementation possibilities.

New approaches are being applied to improve systematic coordination between the different institutions involved in response and relief activities, and standard operating procedures are being developed. The technical as well as the coordination capacities of Tianjin's first response teams have been significantly raised and continuously develop further, enabling harmonised and aligned processes in disaster response.

In the interests of sustainable development the project triggered own initiatives of trained officials and academics who are now proactively driving forward improvements within their sphere of influence. Thus the desired snowball effect necessary to disseminate knowledge, standards and methodologies in disaster risk management has started. Tools and processes identified as best practices in pilot areas will be exemplary not only for national level authorities - also local decision makers can develop their own adaptations applicable to the various situations of the cities and regions of China. This bottom-up approach allows for ultimate national directives to be based on workable solutions with standardisation and coherence being the crucial elements.

'A coordinated and efficient disaster emergency management system will be built, characterized by unified command, sound coordination, clear division of work, and level-by-level control with local authorities playing the main role.' as one of China's strategic goals and tasks for disaster reduction

China's Actions for Disaster Prevention and Reduction
White Paper published by the Information Office of the State Council of the People's Republic of China, May 2009

The project enjoys substantial political support on the highest level in both China and Germany. Over recent years the Chinese government has been ascribing increased importance to disaster risk management. The project's political partner CAG reports directly to the State Council. The State Councillor and Secretary General of the State Council, Mr. Ma Kai, is CAG's current president. In Germany, the Federal Ministry of the Interior is continuously supporting the project activities. State secretary Klaus-Dieter Fritsche participated in the '2010 International Conference on Emergency Management' and met with Chinese experts in Germany to reinforce mutual cooperation.



5

Conclusion and Outlook

Over its three years term so far, the ‘Sino-German Disaster Risk Management Project’ has made a significant contribution toward efficiency and effectiveness of the disaster risk management system in China. Generally speaking, optimisation of a complex system can only be achieved by involving all elements of both vertical and horizontal structures. This is a precondition for coherence and well functioning coordination. Considering the immense complexity of the overall framework, the project’s starting points were sensibly selected.

The ambitious objective of targeting all administrative levels was achieved by using an approach based on multipliers. Having started at CAG/NIEM as China’s main training institution for government officials, exercise based training programmes on disaster risk management are now being held in the Schools of Administration of provinces and municipalities. With considerable snowball effect, multipliers have been also playing a role for the training of first responders.

As opposed to having skills and knowledge ‘trickle down’ the vertical structure involving the respective horizontal stakeholders on each level, a bottom-up approach has been applied to optimise existing contingency plans. The process of adjusting emergency plans based on thorough risk assessment and field testing them for functionality is envisaged to be a general national guideline. To summarise, new concepts, methodologies and international standards have been adapted to the Chinese context and a process of continued disaster risk management development has been launched.

Further initiatives of decision makers on all levels are to be expected as the networking platforms keep stakeholders in disaster risk management informed about each other’s activities. An atmosphere of mutual learning through exchange of experiences and transfer of good practices has become prevalent in the project’s workshops and discussion forums. NIEM is likely to continue the bi-weekly workshops and the annual follow up forum as they are perceived as genuine added value. Another international conference is planned for June 2012. As for the ‘2010 International Conference on Emergency Management,’ China will be the stage again for national and international high profile

meetings. Important international contacts established through the project are sought to be further developed and consolidated. CAG/NIEM intends to hold an international conference every second year, alternating with national conferences on disaster risk management. The first ‘National Conference on Emergency Management’ is planned for December 2011 in Beijing.

Consolidation of contacts will also continue to unfold beyond the completion of the project in regard to German interlocutors introduced to the Chinese partners during fact-finding missions and study trips. That is, on the one hand, the political level like German federal, state and municipal authorities and, on the other hand, the private sector. Enhanced cooperation in the field of industrial safety is desirable for disaster risk managers and the economy alike. Partners of interest are industries that have potential hazards as well as commercial enterprises that produce safety and rescue equipment.

Regional cooperation in disaster risk management across the provinces as well as with other countries is a defined objective stated by the Chinese partners. The Pearl River Cooperation involving nine southern provinces is an example likely to be followed by other neighbouring provinces facing similar hazards.

Modern disaster risk management does not stop at national borders either. China is aware of its role in the region and wants to do justice to this regional responsibility. NIEM continuously expands its position as an international exchange and cooperation centre and becomes more and more active beyond the domestic context. Already today, participants from other countries in the region take part in emergency management trainings offered at the institution.

On the occasion of the anniversary of the Wenchuan earthquake in May 2012 a major search and rescue exercise is planned in Sichuan province. NIEM in cooperation with NERSS and the project considers complementing the drill by focusing in particular on the trained first responders. In addition to the practical exercise, a symposium could be organised including all players involved in the project activities in Sichuan - an excellent

opportunity to invite all parties interested in first responder activities. The project's expertise could be used to support the evaluation of the exercise as well as to jointly review lessons learnt from previous activities in order to further expand and develop the concept of first responders.

In autumn 2012, a comprehensive staff exercise is planned in one of the pilot provinces combined with a practical test of the revised local emergency plans. Administrative and operational crisis units will train together with emergency forces in a simulated disaster scenario. The core trainers of CAG/NIEM will assist in the organisation of the event and will in particular take care of planning the administrative staff exercise. Again, the focus will be on decision making processes and coordination. In parallel, the process of emergency plan optimisation kicked off by the project in the respective pilot province takes a further step forward. The two project areas of ToT and contingency plan optimisation will be logically and meaningfully merged. A critical self-evaluation and learning from this experience is supposed to follow.

The bottom-up approach ensures that the application of international standards in the Chinese context is thoroughly field tested for efficiency before a particular method qualifies for policy suggestion. Thus, the project can hopefully contribute to the creation of improved national guidelines and directives in disaster risk management based on accepted best practice.

The multiplier effect in other project activities is rapidly spreading knowledge, but it will certainly be a challenge to have, for example, first responder activities widely extended beyond the pilot province. However, if these activities are recognised as successful experiences on national decision making level, it is likely they will be pushed forward.

By nature, the project is acting on macro-level, whereas the final benefits will accrue to the micro-level. The ultimate objective for the project and its partners is to have the overarching administrative structure in any given community efficiently manage disaster risks to ensure safer lives for the people at grassroots level. Given the number of more than 1.3 billion people living in China plus rather complex systems in place necessary to make such a large state function, it will take time for the effects of improvements to be felt by the whole population. But looking at the tremendous developments that have been evolving in China over recent decades at incredible speed, it is not unrealistic to expect tangible and measurable results far beyond the project's achievements in the foreseeable future.

Abbreviations and Acronyms

ADB Asian Development Bank	MOF Ministry of Finance
ADPC Asian Disaster Preparedness Centre	MOH Ministry of Health
BBK Federal Office of Civil Protection and Disaster Assistance	MOJ Ministry of Justice
BMI Federal Ministry of the Interior	MOR Ministry of Railways
BMZ Federal Ministry for Economic Cooperation and Development	MOT Ministry of Transport
BOSTIND Bureau of Science, Technology and Industry for National Defence	MPS Ministry of Public Security
CAAC Civil Aviation Administration of China	MST Ministry of Science and Technology
CAG Chinese Academy of Governance	MWR Ministry of Water Resources
CAS Chinese Academy of Sciences	NCDR National Committee for Disaster Reduction
CBRC China Banking Regulatory Commission	NDRC National Development and Reform Commission
CCCPC Central Committee of the Communist Party of China	NDRCC National Disaster Reduction Centre of China
CEA China Earthquake Administration	NERSS National Earthquake Response Support Service
CIRC China Insurance Regulatory Commission	NIEM National Institute of Emergency Management
CMA China Meteorological Administration	NTA National Tourism Administration
CSRC China Securities Regulatory Commission	PBC People's Bank of China
CPAPF Chinese People's Armed Police Force	PDCCCPC Publicity Department of Central Committee of the Communist Party of China
DKKV German Committee for Disaster Reduction	PLA People's Liberation Army
DRM Disaster Risk Management	PLAGL PLA General Logistics Department
DRR Disaster Risk Reduction	PLAGS PLA General Staff Department
EU European Union	RCSC Red Cross Society of China
GAOSIQ General Administration of Quality Supervision, Inspection and Quarantine	SARFT State Administration of Radio, Film, and Television
GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH	SAWS State Administration of Work Safety
HKMAO Hongkong and Macao Affairs Office of the State Council	SBLC State Bureau for Letters and Calls
IFO Information Office of the State Council	SCEMO State Council Emergency Management Office
MCA Ministry of Civil Affairs	SERC State Electricity Regulatory Commission
MEP Ministry of Environment Protection	SFDA State Food and Drug Administration
MFA Ministry of Foreign Affairs	SFDH State Flood Control and Drought Relief Headquarters
MHRSS Ministry of Human Resources and Social Security	SG State Grid Cooperation of China
MHURD Ministry of Housing and Urban-Rural Development	SOASAC State-owned Assets Supervision and Administration Commission of the State Council
MIIT Ministry of Industry and Information Technology	SPB State Post Bureau
MLR Ministry of Land and Resources	TWAO Taiwan Affairs Office of the State Council
MOA Ministry of Agriculture	THW Federal Agency for Technical Relief
MOFCOM Ministry of Commerce	UNDP United Nations Development Programme
MOE Ministry of Education	UN INSARAG United Nations International Search and Rescue Advisory Group
	UNISDR International Strategy for Disaster Reduction

GIZ-

China's Partner For Sustainable Development Solutions

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