

The importance of synergy among the government, communities and NGOs in sustainable disaster risk management initiatives in China

Case Study

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Project background	1
Working towards a well-prepared community	2
The classroom experience	3
Training to teach others	4
Success factors in Dujiangyan	4
Local NGO involvement is crucial	5
A changed man and a safer community	6
Driving motivation in Zheijiang and Jiangxi	8
Conclusion	9

Project background

Large scale disasters cause major disruptions within a country and community members often become first responders. Citizens, local NGOs, law enforcement, search and rescue personnel, and members of academia each have a role to play following a rapid onset disaster. A well-trained community can help minimize the effects of disasters by understanding how to prepare for and respond to local hazards.

It's not uncommon for outside assistance to take days to reach rural parts of the affected areas after a major disaster. Often collapsed buildings and hazardous roadways inhibit transportation and communication. This limits the amount of aid reaching rural communities and it's up to the community to lead response efforts with limited tools and capacity.

Foreign Disaster Assistance (USAID/OFDA) launched a Community Based Disaster Risk Management (CBDRM) project with support from China's Ministry of Civil Affairs to train community members and local government officials in China.

The project targeted three communities in three different provinces including Juxing Community, Dujiangyan City, Sichuan Province; Yumeishi Community, Xiaoshan District, Hangzhou City, Zhejiang Province; and Maoping Community, Maoping Township, Jinggangshan City, Jiangxi Province. These areas were selected based on the different hazards and landscapes in each area. Dujiangyan and Xiaoshan are both urban environments, but Dujiangyan was heavily affected by the Wenchuan earthquake while Xiaoshan was not. Jinggangshan is located in a rural area with many hills and was not affected by the Wenchuan earthquake.



Areas of the destruction caused by the Wenchuan Earthquake are still preserved in the destroyed city of Beichuan City, Sichuan Province. The site serves as a reminder to the destruction caused by the earthquake.

In 1976, the Tangshan earthquake with a magnitude of 7.5 on the Richter magnitude scale killed over 240,000 people. The response efforts included more than 100,000 army personnel, but a lack of equipment for search and rescue operations impeded their effectiveness since the damage was so catastrophic. After the event, it was found that over 80 percent of the survivors were rescued by neighbors, friends, and family members, rather than the deployed army personnel.

More recently, the 2008 Wenchuan earthquake measuring 8.0 on the Richter scale caused massive damage to areas in Sichuan Province and seriously affected Shaanxi and Gansu provinces. The event resulted in 69,227 people killed, 17,923 missing and 46.25 million were affected. Loss and damage was catastrophic and millions were spent on reconstruction. Once again, community members were left to fend for themselves until outside help arrived.

The possibility of similar events sparked both international and national agencies in China to focus on enhancing community knowledge on disaster risk management (DRM) to mitigate the effects of disasters. Understanding this, the Asia Foundation with financial support from United States Agency for International Development/Office of U.S.

Each of these communities that were selected for the project had received the National Comprehensive Disaster Reduction Demonstration Community (NCDRDC) award from National Committee for Disaster Reduction and Ministry of Civil Affairs for available basic infrastructure in their community related to disaster preparedness such as storage rooms, evacuation routes and centers.

The Asia Foundation invited the Asian Disaster Preparedness Center (ADPC) to provide technical support in developing training courses to deliver in each province. The Ministry of Civil Affairs was the implementing agency, and the project team included the Asia Foundation, Beijing Normal University, and relevant local government including local civil affairs bureaus and organizations.

The significance of this project is reflected in the fact that it's the first time CBDRM was brought to China in a systematic way. The CBDRM course was very intensive covering all the subjects of ADPC's two-week regional CBDRM course, which has been developed and delivered since 1997, in only a three-day period.

Working towards a well-prepared community

The project launch meeting was held in Beijing on 16 March 2012 where participants decided that a needs assessment should be conducted in the implementation cities to better understand the community's needs related to disaster risk reduction and their social, political and economic situation. About a month after the meeting, ADPC and its implementing partners the Ministry of Civil Affairs, Beijing Normal University and the Asia Foundation, traveled to each province for the needs assessment to gather necessary information to create a community exercise that uses concepts and participatory risk assessment tools to develop an action plan to solve the identified risks within the communities.

After the needs assessment, course planning and curriculum development began within ADPC in Bangkok. It was first written in English and later translated into Mandarin for implementation. The course was structured for a total three days (two days in the classroom and one day in a selected community for the exercise) and took place in each of the three provinces between December 2012 and March 2013.

The objective of the training was to build the capacity of community members and local government agencies to better prepare them to identify risks through hazards, vulnerability and capacity assessment in their community. The training structure included two classroom days where participants were trained in understanding the basic concepts and terms in disaster management, CBDRM concepts, approaches and process, the use of Participatory Risk Assessment (PRA) tools which are used for community disaster risk analysis. This knowledge allowed community members and other stakeholders to identify risks jeopardizing their community/village during the out-of-class exercise on the third day of the training. From here, an action plan was made on what the community needed to solve in the future through participatory approaches by participants together with community members. ADPC delivered the course in all the three provinces.

Training location and dates for Community Based Disaster Risk Management

Yumeishi Community, Xiaoshan District, Hangzhou City, Zhejiang Province,
18–20 December 2012

Juxing Community, Dujiangyan City, Sichuan Province,
9–11 January 2013

Maoping Community, Maoping Township, Jinggangshan City, Jiangxi Province,
19–21 March 2013

The classroom experience



Participants from Dujiangyan collaborating in a group activity during the course. Mr. Yin Maobo, Head of Chunhui Social Work, a local NGO in Dujiangyan is standing in the center of the photo.

The two-day classroom period was split into 12 sessions that covered key CBDRM topics. Each course began with a review of common terms and concepts in disaster management to create a mutual understanding among the group.

A specific session on the use of participatory risk assessment tools was held since they were a new concept in China at the time. The session was similar among all three provinces, however there were some unique experiences in each area depending on the hazards and risks such as earthquakes, flash floods, and landslides. In some cases, a lack of lighting on the road and fire lanes blocked by debris were identified as a risk.

The courses also covered the theoretical foundation regarding disasters, such as clarifying the difference between a hazard and a disaster, benefits of preparation compared to response and damage and loss differentiation among other topics.

The training course also included a group activity that proved very successful, which was meant to show the importance of all aspects of a society working together to create an effective and sustainable program for disaster risk reduction.

Participants were split into four groups each representing local government, non-governmental organizations, the community, and one observation group were told to determine who should take the lead on disaster risk management activities. Each group made strong arguments, but when all the groups came together to discuss, it became evident that only with the cooperation of all three sectors can disaster risk management activities be successful and sustainable

Reference materials to assist in increasing participants understanding during the course included a manual for the classroom and field work exercise, reading materials related to case studies on disaster risk management in selected four countries (China, Indonesia, Vietnam and Thailand), and power points to assist with each session.

During the “Building and sustaining a community disaster risk management organization” and “community training” sessions, it was stressed that without these topics the DRM activities could not be efficient and sustainable. The course ended with preparing for the exercise on the third day.

“It’s hard to say what the most important part of the training was. It was all useful because it took a very systematic approach and helped us to change our concept. We didn’t have knowledge before, but because basic concepts were taught to us we could add the specific details we needed later,” said Mr. Yin Maobo, Head of Chunhui Social Work, a local NGO in Dujiangyan.

The three CBDRM courses had 92 participants, among them 32 from Zhejiang, 31 from Sichuan and 29 from Jiangxi. Apart from the participants from the three separate provinces, there were eight observers who participated in the course in Zhejiang and Jiangxi Province. The six from Zhejiang were there to learn from this experience because the Ministry of Civil Affairs had plans to implement a similar project funded by the government of the United Kingdom; and two from Jiangxi were assigned to attend by the leader of local township government. In total, there were 100 people in the three CBDRM courses.

Participants from local government included officials from township, county and province. Other noteworthy participants included community leaders, medical doctors, head of a hospital in Jiangxi, teachers and a head of middle school, owners of private companies, and heads and staff members of local NGOs.

Participants reported that the course was very enjoyable because the lessons were new, and the tools and concepts were very practical. They reported it was very beneficial for them because everything they learned can be used immediately after the course ended.

Training to teach others

A final workshop was held in Jinggangshan City, Jiangxi Province, in December 2013, as the CBDRM project came to an end. During the workshop, participants gave a positive report and were eager for more courses to further increase preparedness. ADPC proposed a Training of Trainers course for community-based disaster risk management (ToT for CBDRM) and a community action for disaster response training (CADRE). The Asia Foundation, through funding support from USAID/OFDA, chose to continue supporting the project to develop the ToT for CBDRM course based on the positive feedback from the final workshop. However, the CADRE course was not conducted due to funding support issues. ToT for CBDRM course was held in Beijing from 25–28 February 2014. The course was the first course of its kind, and was developed and delivered by ADPC.

The course was an important step for the ongoing development of CBDRM in China because it complimented the CBDRM course by providing trainers with the capacity to continue project activities even after the project ended. Only participants from the CBDRM course could become trainers due to their familiarity with the materials and activities. The training was meant to enhance the capacity of local communities, government agencies and non-government organizations. Each province was requested to select 10 outstanding participants from the CBDRM course to attend the ToT for CBDRM course in Beijing.

Success factors in Dujiangyan



Some of the participants in Dujiangyan engaged in group work during the CBDRM course in January 2013.

After the CBDRM course and the training of trainers course for CBDRM, communities selected by Dujiangyan City Bureau of Civil affairs participated in different versions of the training. Dujiangyan has flourished in its CBDRM efforts and is the most successful implementation site for two reasons: the public and local government are highly motivated to participate in disaster risk management activities after the community was so greatly affected by the 2008 earthquake, and the dedication of local NGOs to disaster risk management working in the community that can lend their support in capacity building activities.

Chunhui Social Work is the local NGO directly involved in CBDRM activities and its members participated in both CBDRM and ToT for CBDRM courses. The organization is now conducting their own community trainings based on what they learned during the courses.

The NGO typically hosts 30 to 40 disaster risk management half-day courses each year and each course has an average of 20 to 30 participants usually from local disaster risk management committees, and occasionally local experts are invited to share their knowledge and experience.

“The community based disaster risk management course helped us understand the concept, so we were able to realize what we needed. We selected sessions and reorganized the course schedule to accommodate different schedules and address the needs of the community,” said Mr. Yin Maobo.

Dujiangyan achieved many of the goals in the action plan. Some of these outputs include increasing the space between new structures in the community that had implemented CBDRM activities, which allows more room

for evacuation, greater availability of fire extinguishers and fire hydrants, and more lights on the streets. There was also the establishment of landslide observation tower used to increase early warnings.

The course activities had such an effective impact that the Dujiangyan city government changed its funding strategy to better support community based disaster risk management. This is the first time Dujiangyan City government provided funding to its City Bureau of Civil Affairs for capacity building initiatives related to disaster risk management in the city.

Local NGO involvement is crucial



Photo by ADPC

Participants from the CBDRM course in January 2013 present their group work. Course attendees consisted of local NGO staff, local business owners, leaders and members of communities in Dujiangyan.

Based on the outcomes of the course, and the success in Dujiangyan, it is evident that NGOs play an important role in continuing CBDRM activities within China. They have a very close relationship with the local communities they work in and can effectively be used during the implementation of new projects.

A popular strategy for local government agencies is to buy the services of non-government organizations to assist in local operations related to elderly care and other services, but not for disaster risk management. However, this is planned to change.

Non-government organizations and volunteer services are being prepared to assist in disaster risk management initiatives in Dujiangyan. Over the next five years starting from 2014, the Dujiangyan City Bureau of Civil Affairs hopes to implement a CBDRM program in at least three fifths of the 200 communities and villages. NGOs support will be critical to make this possible.

“I hope during this period, since our budget is limited, we can get more volunteers to be involved, buy services from NGOs and ask them to train volunteers. So then they both

Mr. Cheng Yuanliang, Section Chief of Disaster Relief Section of Dujiangyan City Bureau of Civil Affairs, reflects on how far CBDRM has come in his community.

“You know before the earthquake, we did not have such a disaster risk management concept and that is why we did not have any funding. The good thing is that after the CBDRM course Dujiangyan City Government has decided to give us 100,000 Yuan annually for capacity building activities in the community,” said Mr. Cheng Yuanliang.

can work in implementing projects within the community,” said Ms. Wang Yan, Deputy Head of Zhongxing Township, Dujiangyan City.

The Dujiangyan City Bureau of Civil Affairs witnessed the effectiveness of NGOs when numerous organizations came to help after the Wenchuan earthquake. The government was so impressed that a building in Dujiangyan was converted to provide local NGOs to use free of charge.

Adding to this support, there is a need to continue building the capacity of local NGOs and other volunteer services in China. If a resource pool of local NGO members can be created there will be an opportunity for a wider reach in CBDRM capacity building that will benefit vulnerable communities across China.

Supporting local NGOs in this way can help CBDRM initiatives receive the manpower the projects need to continue. The government can provide guidance and oversight over projects, but it's the NGOs responsibility to implement the details at the community level. This model can help ensure lasting CBDRM activities.

A changed man and a safer community



Mr. Luo Xuwen (left) listens to Mr. Ling Hu Chang Xun (right) during a course field exercise. Mr. Ling Hu Chang Xun is a local bookshop owner who closed his business for three days to attend the course.

From the beginning Dujiangyan was very interested and active in the course due to the serious effect the Wenchuan earthquake had in the area. The government agencies, communities, private sector and local NGOs were all very engaged in the training, some private businesses even closed their shops to participate.

The community's willingness to participate in CBDRM activities opened an opportunity for one man to create a safer environment while simultaneously excelling his own career.

Before the training, Mr. Luo Xuwen, Head of Hongmei Community, Dagan Township, Dujiangyan City, Sichuan Province, returned back to his community with a population of about 800 people, after serving in the army for a few years. After his return, he began acting as Secretary to the Hongmei Community Committee.

During the CBDRM course he met a lot of people in the government, communities and members of local NGOs. The course motivated him to participate in disaster risk reduction activities to help create a safer community.

After the course, he worked with Chunhui Social Work to implement CBDRM activities in the community under the guidance and support of the Dujiangyan City Bureau of Civil Affairs.

One of the results of the partnership was the developing and posting of a hazard map in a popular area of the community where it could easily be viewed. The hazard map, and his reputation, became popular since the map outlined risk areas, evacuation routes, and safe zones, which the community residents greatly appreciated. The hazard map inspired residents to reduce risks in the community further expanding the impact of the CBDRM

activities. He and his team also trained people in the community.

Mr. Luo Xuewen and Chunhui Social Work's activities soon gained the attention of the Dujiangyan City Bureau of Meteorology, who complemented their effort by donating a device that measure's rainfall. This is crucial because a large amount of rainfall can increase the risk of landslides, a common hazard in the area. When the device detects 25 cm of rainfall it sounds an alarm that notifies people within an office to make an announcement about greater potential for floods and landslides to the community.

After he gained attention from the Dujiangyan City Bureau of Meteorology, the Dujiangyan City Bureau of Land and Resources also supported him. The bureau provided their expertise on landslides and how to reduce future risks in the area.

The support of the government agencies made him stand out among the community members even further. Due to his activity in the community, and his high standing with the local government agencies, he was elected as a community leader by the community members during the community election process.

The community became a safer place thanks to the work of Chunhui Social Work and Mr. Luo Xuewen, who could not have done it without the support of Dujiangyan City Bureau of Civil Affairs and other government bodies. Also, Ms. Wang Yan, Deputy Head of Zhongxing Township, Dujiangyan City after seeing the success in Dujiangyan, aims to implement CBDRM activities within 12 communities of the township.

As the success in Dujiangyan shows, giving people knowledge on CBDRM concepts have proved very successful. A strong leader flourished, and the city is engaged in training activities and has physical items related to CBDRM, such as the rainfall measuring device, at its disposal. The next step is to combine the CBDRM capacity building activities with the use of physical items to create a more holistic approach to mitigating risks. By having both the knowledge and the tools to support the CBDRM activities, safer communities will be created and project activities will become self-sustaining and impactful.

Driving motivation in Zhejiang and Jiangxi

In Zhejiang Province, far from the areas that were severely affected by the Wenchuan earthquake in 2008, there is no long term plan to continue implementing CBDRM efforts after the initial two courses were conducted.

One reason for the lack in motivation is that only mild disasters affect the areas. Earthquakes are virtually non-existent and floods are mild and infrequent. The local population feels confident in how to handle them and is not motivated to build their own capacity. The last major flood in Zhejiang happened in 1997 and there were no casualties. With no catastrophic events, motivation to participate in disaster risk management is low.

Even though information for this case study was done by interviewing individuals in two provinces, Sichuan and Zhejiang, it's understood that the outcome of the course in Jiangxi Province is similar to Zhejiang Province because of the low frequency of major disasters in both areas.

Future projects should drive the community action that has the capacity to be self-sustaining after the initial project ends. This is important because an empowered community can drive government support, as seen after the course in Zhejiang.

The local government who participated in the CBDRM course in Zhejiang applied what they learned by identifying new risks in surrounding communities. They then submitted a report to local authorities to request funding to mitigate the risks. These mitigation activities included the expansion of a sewer system that was discovered to be incapable of draining enough water during heavy rains, building a barrier to prevent people from falling into a river, and replacing old gym equipment to prevent injury to children. All risks were identified before an incident proving the effectiveness of community awareness and a responsive government.

Zhejiang Province is one of the richest provinces in China, and shows that funding is not always the issue for a lack of disaster risk management activities. It's the community's willingness to participate and government support that determines the initiatives.

NGOs also play a key role by facilitating community action, as seen in Dujiangyan, and without the local NGO as a mobilizer it is difficult for community efforts to continue after the initial stages of a project.

It is possible for local government to take on a guiding role and motivate local NGO or community involvement. If NGOs are already present in the community, they can implement disaster risk management activities to eventually handover implementation responsibility to active community members. This way the activities will eventually become self-sustaining. The important finding here is that there needs to be a community entity that drives participation in order to ensure long term disaster risk management activities.

If further training could target local government agencies and interested community members to form local NGOs, or if existing NGOs are given more support, a plan could be created to drive disaster risk management activities. The rest will be sustained by the community with government support.



Participants present their outputs of the field exercise during the CBDRM course conducted in Maoping Community, Maoping Township, Jinggangshan City, Jiangxi Province in March 2013.



Participants engage in discussion during the CBDRM training course in Zhejiang Province in December 2012.

Conclusion

For the reasons stated above, the effective model in China is that resources, including funding and professional expertise, government, community and NGO support are needed to ensure a successful project implementation. While any one of these factors can be used to help spark motivation during the initial phase of the project, if any one of these factors are lacking, then activities are not likely to continue further than the initial phase of the project.

Local NGOs, or an outside training agency, can be used to drive activity and work with the government to solve identified risks using a bottom up approach. Also, if the government wants to engage in more disaster risk management activities they can use local NGOs as the implementing agency to drive public motivation. In both scenarios funding is required to drive the activities.

In community's unaffected by major disasters motivation to participate was very low until the project intervention. This shows that further capacity building is needed so communities can identify the relationship between hazards and disasters. Just because they have not experienced a major disaster, does not mean one will not happen in the future. Programs should strive to motivate preparedness efforts through information sharing and capacity building.

Building community understanding of DRM is critical since there is already support for the construction of basic infrastructure related to DRM. Each of the three communities selected for the CBDRM project received the National Comprehensive Disaster Reduction Demonstration Community (NCDRDC) award from the National Committee for Disaster Reduction and Ministry of Civil Affairs. Communities received this award for disaster preparedness infrastructure in their community such as storage rooms, evacuation routes and centers. This infrastructure was provided and supported by the Chinese government at different levels and shows their willingness to support these types of projects. In the future, there should be a focus on both infrastructure construction and capacity building activities. This would be the perfect model to create a more holistic approach to DRM and could act as a good practice that can be a representation of good practice in China and act as a model for the world.

Future projects should take extra effort to ensure all parties are involved in DRM activities that put equal value on infrastructure construction and capacity building activities. These factors will help ensure DRM activities can remain long after the implementation ends to create safer communities in China.



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