

6. Field Survey on Sichuan Earthquake

The Asian Disaster Reduction Center (ADRC), in cooperation with the Disaster Reduction and Human Renovation Institution (DRI), has investigated ways to utilize the lessons and experiences of the Great Hanshin-Awaji Earthquake regarding the recovery and restoration of disaster-stricken areas, to respond to the Sichuan Province Earthquake that struck Wenchuan County in China's Sichuan Province (GLIDE no. EQ-2008-000062-CHN) on 12 May 2008. To conduct this investigation, ADRC Senior Researchers Mr. Kenpei Kojika and Mr. Shuhei Tanaka, and DRI Research Fellow Mr. Atsuo Takahashi spent 25-30 May visiting the cities of Dujiangyan and Mianzhu in the disaster-stricken area. Their objective was to assess the situation on the ground and to share information with officials from the Sichuan Provincial People's Government, the China Earthquake Administration, and the National Disaster Reduction Center (NDRC) of the Ministry of Civil Affairs.

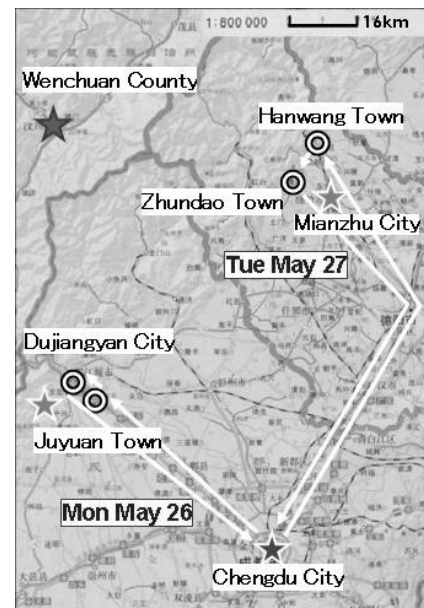


Fig. 6 Survey Area

(1) Situation Report

In Chengdu City, the provincial capital of Sichuan, buildings and other structures sustained little damage. Shops are open as usual, and just two weeks after the earthquake, citizens are going about their everyday business. About 60 km from Chengdu,



Fig. 6 Hanwang Town Government Office was totally collapsed

however, lies Dujiangyan City, a popular tourist destination registered on the World's Heritage List. Many of this city's buildings have been damaged, and the shops are closed. In Juyuan Town (outside of Dujiangyan City), relatively few buildings were destroyed, but residents have been sleeping outside in tents due to fears about returning to their homes. Public tent villages and large-scale temporary housing units are being constructed at a feverish pitch, and the speed of the government's response is evident. Hanwang Town (outside of Mianzhu City), which is believed to lie along the fault where this recent earthquake occurred, sustained catastrophic damage, with many

buildings having collapsed. Even the Hanwang Town Administration Building was completely destroyed. Recovery and reconstruction efforts will be difficult here. In Zhundao Town (outside of Mianzhu City), a field hospital equipped with X-ray equipment has been opened, and a medical system has been established to meet the needs of patients. The most seriously wounded victims who cannot be treated here are being sent by ambulance to hospitals in the city. Temporary schools have also been established.

The attitudes of some victims reflect an understanding of the situation. "Under these circumstances, there is bound to be a shortage of supplies. The government is handling the situation well, so we will continue to persevere." Others, however, are complaining. "There are no relief supplies coming in and we are at a loss for what to do." It is difficult to secure baths, toilets, and water, and there is a shortage of tents, blankets, medicines, and heavy construction equipment. There has been little effort to address the emotional needs of victims who have lost family members. With daytime temperatures exceeding 30°C, sanitation is an important issue, and government

institutions are engaging in disease prevention efforts.

Several thousand volunteers, including students and other members of the community, have signed up to help in Dujiangyan City. Private and corporate volunteers with experience addressing issues of poverty and the environment have been active in the region, but they have primarily been involved in getting supplies to victims. There is a particularly serious need to enlist volunteers with specialized knowledge of mental health care issues.

(2) Government Response

According to Deputy Director Mr. Tang Hong of the Sichuan Province Foreign Affairs Office, who is responsible for accepting relief supplies from overseas, more than 2,000 tons of supplies have been received from 40 countries, and these are being delivered to victims under rigorous controls. Since blankets and other relief supplies were provided by Hyogo Prefecture, the Sichuan provincial government responded to our team's visit and gifts of support with expressions of gratitude to Governor Ido and the people of Hyogo Prefecture for their past and ongoing assistance. A letter of gratitude was presented to ADRC Senior Researcher Mr. Tanaka, who is also an official with the Hyogo prefectural government. The Sichuan provincial officials also expressed gratitude for Japanese emergency response teams and medical teams, which arrived ahead of those from other countries.

Vice Director Mr. Miao Chong-gang of the Earthquake Emergency Management Department Response Command Center of the China Earthquake Administration explained that detailed damage surveys are being conducted on 1,000 buildings in the disaster-stricken region and that officials are getting started on efforts to review the seismic intensity maps that stipulate the standards for seismic-resistant design.

Deputy Director Mr. Fang Zhiyong of the NDRCC says authorities have been basing their post-quake response on the assumption that the death toll will be about 60,000, saying "Our top priorities at the moment are providing medical care and everyday living assistance to victims,



Fig. 6 Information Sharing with NDRCC

preventing disease, and building temporary housing. We are in the process of investigating more specific recovery and restoration plans. We currently need about three million tents, but only 400,000 have thus far been supplied from domestic sources. As soon as they can be produced, they will be shipped to the disaster-stricken areas." He explained that three million temporary housing units are needed, and that this need will be met domestically by assigning specific disaster-stricken areas to economically wealthier coastal provinces that can provide support. He also expressed gratitude for our visit and our willingness to cooperate based on our interest in large earthquakes and our experiences and lessons learned from the Great Hanshin-Awaji Earthquake.

With regard to the formulation of a recovery and restoration plan, we learned from Professor Gu Linsheng of Tsinghua University's Emergency Management Research Center that the central government has divided the disaster-stricken region into four areas, and government agencies will be working together with academic institutions to formulate recovery plans for each area within the next three months. Professor Gu has already summarized the issues that need to be addressed in the restoration plan, based on information gleaned from the Great Hanshin-Awaji Earthquake, and has presented that information to the government authorities. Grass-roots exchanges of volunteers with experience helping out with large earthquakes are also expected to take place between Japan and China

(3) Conclusions

Multifaceted response efforts are underway in the regions visited during this survey with regard to public evacuation shelters, field hospitals, medical care, disease prevention, temporary elementary schools, temporary housing construction, and the revision of seismic resistance standards. The experiences and lessons of the Great Hanshin-Awaji Earthquake can be used to provide support for the recovery and restoration of the disaster-stricken region in the following areas:

- Advice regarding the formulation of earthquake restoration plans (within three months)
- Management of temporary housing facilities and the maintenance of communities
- Mental health care for victims
- Industrial restoration
- Repairs to cultural assets

Finally, we would like to take this opportunity to thank all of the Chinese officials who made themselves available to us during this challenging time, and to all of those who provided cooperation and support for our efforts.