Wenchuan Earthquake: Disaster Conditions and Anti-Earthquake and Disaster Relief

Submitted by: China
1. Severe Disaster Conditions

- The serious earthquake measuring 8.0 on Richter Scale occurred at 14:28 on May 12, 2008 in Wenchuan, and affected 417 counties (cities, districts) in ten provinces and cities of Sichuan, Gansu, Shaan Xi, Chongqing, etc., involving 4,656 towns and 47,789 villages, more than 80,000 people died or lost, resulting in a disaster-affected population of 46,240,000 and 15,100,000 needed to be transferred in emergency and lodged in different places.
(1) The earthquake was of high intensity, affected a vast area, and resulted in a serious damage.

- Some experts believed that this earthquake is a fracture zone earthquake resulted from thrust-type strike-slip fault. In other word, at the two sides of earth crust fracture zone, hanging wall ascends and footwall falls, while they slide along the fault trend. Wenchuan Earthquake affected a vast area, and it was said to be felt in almost all Southeast Asia and all East Asia.
(2) The affected area has special regional structure, with the epicenter at the verge of the affected area.

- This earthquake didn’t have one center, but rather a seismic belt which resulted in widespread destruction along fracture zone, and in this stripped region, the SW-NE length of the harder-hit area was over 400km, the NW-SE width about 100km. The earthquake resulted in a major fracture, 300km long and 30km deep, with a maximum vertical and horizontal separation of 5m and 4.8m respectively.
(3) Complicated terrain and vastness of the affected area greatly restricted the capacities for disaster relief.

- The hardest-hit area is 125,000 square km in area, and located at the northwest plateau of Sichuan, where “the mountain paths are too hard to travel, even harder than scaling the blue sky”. This region is known for tall mountains and continuous deep valleys, the mountains of Min, Gonglai and Longmen intersecting with each other, and many places are unfrequented, which, in the course of large-scale disaster relief, leaves no much space for mobilization. The famous wars of Qing Dynasty against the native chiefs in Big Jinchuan and Small Junchuan lasted for many years due to the complicated terrain here.
(4) Operation were put in emergency relief and lasted long.

- This is a disaster relief operation with the highest level of modernization in all disaster relief operations since the founding of the nation, which is nothing less than a small-scale modern war, raising high demand on commanding, coordinating, dispatching and supporting in the disaster relief operation.

(5) Blocking of main arteries of traffic and many country roads as well as numerous fleeing people is another special feature and difficulty for this disaster relief operation.

- As roads were blocked up in this disaster relief operation, numerous residents in the hardest-hit area fled out of the mountain areas and flooded into the cities of Mianyang and Deyang and other county towns, resulting in a great deal of lodging of the affected people in urban downtowns. Meanwhile, the blocking of mountain roads brought about many difficulties for delivery of relief supplies to the rural areas.
(6) This disaster relief operation is of high comprehensiveness.

- Emergency relief, emergency rescue, reopening of roads and traffic, restoration of power supply and communications, subsistence security, sanitary and epidemic prevention, treatment of barrier lakes and other operations have to be extensively launched. The intersection of all-aspect disaster relief, urgency of emergency rescue and long term of restoration work places particular reliance on timely exchange, analysis and judgment of disaster relief information, thus facilitating rapid determination of key difficulties and key emphases in key regions.
Aftershock occurs in high frequency, resulting in severe secondary disasters.

- By June 23, over 13,685 aftershocks have been recorded, out of 189 aftershocks were at Magnitude 4 – 4.9 on Richter scale, 28 aftershocks at 5 – 5.9, and 5 aftershocks at over 6. The continual aftershocks over Magnitude 5 which resulted in secondary disasters, a death toll of about 70,000 people and 17 million livestock, along with the advent of hot summer and rainy season, makes the disaster relief operation extremely complicated.
(8) The affected areas are largely located in mountainous regions, poverty-stricken regions, and regions inhabited by ethnic groups, with some towns being affected.

- In the course of China's per capita GDP growing over $2,000 and approaching $3,000, and how to, under the development pattern of emerging widening of urban-rural gap and regional disparity as well as “long-legged” economy and “short-legged” society, implement proper disaster relief policy for the affected residents in hardship is a big test for the government’s disaster relief operation.
(9) The disaster relief operation needed widely international cooperation

Since this disaster relief operation took place at the right moment of China's all-round opening up and integrity of domestic and international affairs, the participation of international rescue teams and that of Taiwan and Hong Kong rescue forces as well as close attention of the international communities on this disaster relief operation, it attaches a strong touch of international presence to this operation. It also needs us have strong ability to learn international experiences and operate disaster relief according to international standards.

2. Response to Catastrophe Disaster: Structural Adjustments and Innovation
(1) The new commanding mechanism of paramount leader, assuming unified command of the disaster relief operation.

- CPC Politburo decided to establish State Council Anti-earthquake and Disaster Relief Headquarter, which then set up 9 working teams. In May 15, the headquarter decided to set up Front Line Commanding Headquarter in Chengdu, coordinating front line disaster relief affairs.

(2) Rapidly establishing a mechanism of full operation of the army troops and all emergency rescue forces.

- The disaster relief force, with army troops the main part and armed police, public security and fire control police, and militia and reserve forces, were put into full operation, with a troop of over 130,000. Meanwhile, the airborne troop was put into operation, creating a world record of 5000m parachuting.
(3) Establishing a trans-regional and trans-departmental integral mechanism for emergency lodging of the affected people.

- Sichuan province initiated the mechanism for all-round lodging of the affected people, coping with the emergency evacuation of millions of the affected people from mountainous regions. The famous Jiuzhou Stadium in Mianyang is a good example. Almost all the towns along the affected areas became the lodging sites for the affected people.
(4) Initiating the mechanism of participation for international emergency rescue.

- This time, Chinese government, for the first time, invited international rescue forces to participate the emergency rescue, and also called for supports from other nations. The operation of several rescue teams from neighboring nations and districts demonstrated the power of international cooperation, while all nations and districts that have diplomatic ties with China provided support for it.
(5) Emergency initiating the mechanism of building temporary shelters.

- The Headquarter promptly decided to make an emergency procurement of 900,000 tents and thousands of tons of tarpaulin and color-strip polypropylene cloth and asked to complete it by June 20, decided to purchase a million of sets of plank houses and immediately began sentinel-building aid from various provinces, to ensure fully the victims’ temporary shelter. At the same time, Sichuan Province also decided to give the farmers who build temporary shelters themselves a subsidy of 2,000 yuan per household to encourage farmers to build interim houses;
(6) Made the three-month temporary living-aid policy.

- By May 20, the Headquarter has decided to give three months of temporary living assistance to the masses in difficulties that have no house to live in, have no means of production and no source of income. The standard is 10 Yuan's subsidy and one jin of processed grain for each person every day; So that the affected people receive a relief that is slightly higher than the international minimum standards of relief;

(7) Confirmed the policy of dealing with the remains and established the consoling policy

- Confirmed the policy of dealing with the remains and established the consoling policy. How to handle nearly 70,000 of victims' remains is another big challenge to the disaster relief work. Ministries of civil affairs, public security, and public health timely made the relevant policy of body disposal, and at the same time, the state promulgated a regulation that it would give each family of the victims 5,000 Yuan's.
(8) Made the medical and health aid policy and the aid policy that helps orphans, single olds and single disables.

- 374,171 people were injured in the disaster, and some were seriously injured. Health and other departments launched a special mechanism to mobilize various provinces to accept the seriously injured and to give an average of 28,000 Yuan's medical subsidy, and the subsidies for accompanying and nursing staff and for the return journey of both. They implemented a free-of-charge policy for the cure of the common wounded. At the same time, the Ministry of Civil Affairs also specially established the special relief policies for the orphans, single olds and single disables, the standard of subsidy per person per month is 600 yuan, significantly higher than the general affected people.

(9) Made a higher standard for the restoration and reconstruction of the farming houses.

- The central government finance expended a total of 40 billion yuan in this respect, of which 35 billion yuan was allotted to Sichuan, 3.8 billion to Gansu, 1 billion yuan to Shaan Xi, and 100 million yuan to Yunnan and Chongqing respectively. At present, the local government normally guarantees the availability of 20,000 Yuan's grant-in-aid for each household.
(10) Established a system of one province’s support for one heavily stricken county.

- In the process of emergency relief, the Ministry of Civil Affairs established the emergency counterpart-support system of one province’s support for one county, which has played a very active role in stabilizing the situation in the affected areas. On June 11, the central government made a formal decision to establish an all-round counterpart-support system of restoration and reconstruction with “one province helping one heavily stricken county.” The central government required that the workload of physical counterpart-support from various supportive provinces each year should be considered no lower than 1% of the local revenue of the relevant provinces or cities in the previous year. Therefore, the mechanism formed that 18 provinces and cities would respectively support 18 counties and cities in Sichuan, Tianjin would support Shaan Xi, and Shenzhen would support Gansu.

18 supportive provinces for the seriously stricken counties in Sichuan:

Guangdong—Wenchuan  Shandong—Beichuan  Zhejiang—Qingchuang  
Jiangsu—Mianzhu  Shanghai—Dujiangyan  Beijing—Shifang  
Henan—Jiangyou County  Hebei—Pingwu  Liaoning—Anxian  
Fujian—Pengzhou County  Shanxi—Maoxian County  Hunan—Lixian  
Jilin—Heishui  Anhui—Songpan  Jiangxi—Xiaojin  
Hubei—Hanyuan  Chongqing—Chongzhou  Heilongjiang—Jiange  

Guangdong (mainly by Shenzhen) for hard-hit areas in Gansu Province  
Tianjin for hard-hit areas in Shaanxi Province
(11) Enacted Regulation on post-quake restoration and reconstruction, systematically regulating post-disaster reconstruction efforts.

- After its publication on June 8, this regulation played a positive role in raising the level of standardization of post-disaster reconstruction work. This is China's first regulation of reconstruction.

(12) Established the mechanism of systematic input of the power of experts and technology.

- The State Council organized the National Committee of Experts on Wenchuan Earthquake, and also formed a National Committee for Disaster Reduction—Group of Experts on Earthquake Relief of Ministry of Science and Technology. The views of many experts and scholars were sent to the Headquarter, which provided an important support for decision-making. In addition, China's satellite remote sensing, the Beidou communication systems, and pilotless aircraft etc. also played an important role in the relief work.
(13) Adjusted and enriched the disaster mobilization mechanism, extensively mobilized social donations.

- As of August 10, communities at home and abroad have contributed a total of 59.298 billion Yuan's money and supplies, of which there has been 52.195 billion Yuan's received payment of money. In 1998, the flood-fighting donations of money and supplies amounted to 7.259 billion yuan (money donations of 3.515 billion yuan). This has far exceeded the records of donations over the years, opened a new era of China's donation history.

(14) Encouraged the development of volunteer services and supported the social mutual assistance.

- According to preliminary statistics, as many as 1.2 million volunteers from all occupations arrived in the affected areas. Since China's volunteer organizations are not fully developed, the services this time were mainly spontaneous. After their arrival in the affected areas, they immediately conducted self-organizations, and soon formed close integration with local managers, shaping different networks of services. Volunteers participated in order maintenance, sanitation management, and psychological treatment and others at settlements for victims.
(15) Established the mechanism of the full open policy to media reports for relief efforts.

- International media and the domestic media gathered new freely in the affected areas, and CCTV special program became an important information platform for the report of the progress of relief work. Consequently, the report for this time's relief work became the most successful case of the opening of disaster information;

(16) Established the system of national mourning day.

- The national mourning for the ordinary victims has played a great role in society in mobilizing the people across the country to devote themselves to disaster relief in one heart and one mind.
From 19th to 21st in May 2008 was national mourning day. The national mourning for the ordinary victims played a great role in society in mobilizing the people across the country to devote themselves to disaster relief in one heart and one mind.

(17) Established the follow-up temporary relief policy for people in the affected areas.

- Aid target includes the “three isolated” (orphans, single olds and single disables); the victims (including the missing) in life difficulty, the family members of the heavily injured and disabled; the relocated; the affected whose houses collapsed or seriously damaged and who have difficulties in life. The duration of relief is a total of three months between September and November.
- Relief criteria: follow-up living assistance is mainly in cash grants, no longer issuing food rations. In principle, the central government finance give subsidies to the above four categories of aid targets in the affected areas in accordance with the standard of an average of 200 yuan per person per month. In accordance with the actual conditions, all the affected provinces will receive classified relief. Appropriately increase the grant criteria for the “three isolated,” the victims with difficulties in life (including the missing), and family members of the seriously injured and disabled.
Conclusion

- On the whole, the adjustments and innovation of disaster relief system, as well as a number of policies has played a significant role in the process of disaster relief. Since the disaster and the people's urgent needs for assistance are urgent, only timely institutional and policy adjustments in accordance with the actual conditions of affected areas can really solve the difficulties in the affected areas, therefore, the fast and efficient establishment of relevant policies has had a good response in both domestic and international community.

3. Prospects

(A) We will carry out restoration and reconstruction from the perspective of development, and complete a full restoration of economic and social systems in the affected areas within three to five years.

(B) Under the circumstances of global warming and frequent occurrence of extreme climate events, we will strive to improve China’s disaster emergency response system and to strengthen China’s ability to respond to disasters.

(C) We will further enhance the capacity building of countermeasures to disasters.

(D) We hope that strengthen international exchanges and cooperation in disaster mitigation and relief.
Thank you very much!