

# the 512 Earthquake

KNOWLEDGE EXCHANGE AND EXPERIENTIAL

LEARNING PROJECTS IN SICHUAN BY HONG KONG PROFESSIONS



Sichuan



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### Chapter 1 Preface



### 1.1 Mr. Henry Tang, Chief Secretary for Administration, HKSAR

On the morning of 1 September 2009, the Yuanjia Primary School in Deyang City held a new-term ceremony, but it was not just another new term ceremony. Thanks to the concerted efforts of many dedicated people in Sichuan and Hong Kong, the Yuanjia Primary School, which collapsed in the massive earthquake on 12 May 2008, opened its door again. After just over a year of reconstruction work the school was ready to welcome back its highly committed teachers and students.

On that morning, the national anthem and the flag raising ceremony plucked particularly hard at the heart strings of all those present. Tears welled up in the eyes of many as the national flag was slowly raised. It brought back memories of the earthquake and its aftermath for students and teachers alike.

The post-quake restoration and reconstruction mission in Sichuan is arduous and long term. Besides resources, it also requires the joint efforts of the government and all sectors of the community. The Yuanjia Primary School reconstruction project is a clear demonstration of the "Government-led, full community involvement" principle upheld by Hong Kong in supporting the mission.

The work at Yuanjia Primary School was undertaken jointly by the Rotary Club of Kowloon West and the Association of Engineering Professionals in Society Ltd, and financed by the Trust Fund in Support of Reconstruction in the Sichuan Earthquake Stricken Areas set up by the Government of the Hong Kong Special Administrative Region.

In this regard, Legislative Council member Dr Hon Raymond Ho Chung-tai, the Association of Engineering Professionals in Society Ltd, the 512 Young Engineers Alliance and the teachers and students from the University of Hong Kong have helped to raise funds for the project. Through their frequent visits to Sichuan, they have dedicated their time, effort and expertise to the planning, design and implementation and supervision processes of the project. Apart from working hard to rebuild the school campus, they have also arranged online study classes for the students. Through these efforts, they have brought the love and support of Hong Kong people to the teachers and students of the Yuanjia Primary School.

#### Preface

Today, the Yuanjia Primary School has an improved campus where some 600 teachers and students can work and learn in a pleasant and safe environment. I also hope the joint work and collaboration in restoring the school will continue to be a strong bridge of friendship between Hong Kong and Sichuan for many years to come.





Mr. Henry Tang Ying-yen, GBM, GBS, JP Chief Secretary for Administration, HKSAR

### 1.2 Ir. Dr. Raymond Ho Chung-tai

Natural disasters cause heavy losses in human lives and properties as well as great human suffering. An 8.0- magnitude earthquake hit Wenchuan County of Sichuan Province on 12 May 2008. It claimed more than 69,100 lives nationwide while over 374,000 were injured and around 18,000 were missing. More than 45 million people were affected by the quake and about 15 million have been evacuated. It was one of the worst earthquakes in recent human history.

Shocked by heavy loss of life and the scale of devastation caused by the tremor, compatriots in the Mainland, Hong Kong and Macau and even those living abroad have joined forces in making large-scale relief and reconstruction efforts in Sichuan to help earthquake victims. After learning the catastrophe, I was shocked and felt sad. In June 2008, I together with several engineers visited the earthquake stricken areas. I tried hard not to let the emotion and sadness to overwhelm me and pondered the possibility of the involvement of Hong Kong engineers in the relief efforts. I made an immediate appeal to fellow engineers in Hong Kong to make donations for the relief of the earthquake victims. The Hong Kong community has dipped deep into the pockets for the relief donations while the HKSAR Government and local relief organisations have promptly sent rescuers and volunteers to Sichuan.

First, our attention focused on the immediate rescue operations, which were crucial for saving more lives and on the emergency efforts including the provision of clean water, food, temporary shelters and medical facilities to the victims. It did not take long for us to work on the resettlement of the victims and long-term reconstruction of the devastated areas. A large number of module houses were built to provide temporary shelters with supporting facilities such as water supply, sewage, waste treatment, temporary schools. However, large-scale reconstruction is necessary for their permanent settlement so that the victims in devastated areas can return to their normal lives. Hong Kong engineers have been involved in every possible way so as to expedite the above processes.

Schooling of the children in the devastated areas is of particular concern to us. The Association of Engineering Professionals in Society, of which I am the Chairman, the 5.12 Young Engineers Alliance, of which I am the convenor, launched a donation campaign for building new schools

in the areas. Yuanjia Primary School(袁家小學), Deyang(德陽市), Sichuan (四川), is amongst one of these newly built schools. Its reconstruction was financed by funds partly raised by the AES, partly by the HKSAR Government's "Trust Fund in Support of Reconstruction in the Sichuan Earthquake Stricken Areas" and the Rotary Club of Kowloon West. The school has adopted advanced earthquake resistant design involving separation between foundations and superstructures in the form of rubber pads sandwiched by thick steel plates. E-learning is also introduced into the school thanks to the efforts of faculty members and students of the University of Hong Kong. Some 600 students moved to the new school premises in the new school year started on 1 September 2009.

I would also like to take this opportunity to thank the Central Government, Liaison Office of the Central People's Government in the HKSAR, Sichuan Province Government, Guangdong Province Government, HKSAR Government and many of other organisations, which have helped coordinate our relief efforts.

Finally, I must say that compatriots in Sichuan, particularly those affected by earthquake, have left me a great impression with their strong will, optimism and resilience to surmount all difficulties in order to live a normal life again. Their persistence and determination is a great inspiration to all of us.





Ir Dr the Honourable Raymond Ho Chung-tai, SBS, MBE, S B St J, JP Member of the Legislative Council (Engineering Functional Constituency) Hong Kong Deputy to the 11th National People's Congress of the People's Republic of China

# 1.3 Stephen S.L. Lam: Secretary of Constitution and Mainland Affairs Bureau, HKSAR

Back in May 2008, communities around the world including Hong Kong were alarmed by the tragic and massive earthquake in Sichuan. Tens of thousands of our fellow countrymen were killed and injured, leaving millions homeless. Post-quake restoration and reconstruction is a colossal and urgent task which requires the support of all.

Hong Kong has actively participated in the post-quake reconstruction work. This fully reflects the concept of "all parties coming to the rescue" (一方有難,八方支援). With the support of the Legislative Council, we have obtained HK\$9 billion to take forward reconstruction work in Sichuan. Our post-quake reconstruction efforts have been proceeding smoothly. We will continue to liaise closely with our Sichuan counterparts, and will maintain the momentum of the projects.

With enthusiasm and concern, Ir Dr. Hon Raymond Ho, teachers and students from the University of Hong Kong, as well as professionals from the 512 Young Engineer Alliance (512YEA), the Association of Engineering Professions in Society (AEPS), the Rotary Club of Kowloon West, and other parties have been making an invaluable contribution to Sichuan reconstruction. Their efforts include the rebuilding of Deyang Primary School and Wenchuan Primary School, and the setting up of e-learning facilities, as well as an interactive networking platform for the students in Sichuan.

This contribution will have a multi-dimensional and far-reaching impact. The reconstruction of schools will provide children in the quake-stricken areas with quality education and a safer learning environment. Students in Hong Kong and Sichuan can be connected through the telecommunication network set up by the 512YEA and AEPS. This seamless connectivity will help forge friendship among students in Hong Kong and Sichuan. Furthermore, the Sichuan side will benefit from the reconstruction projects and acquire professional skills and technical know-how on the engineering and project management fronts.

I firmly believe that the contribution made by the Hong Kong students, teachers and professionals will bring hope and assistance to Sichuan. This will also help to broaden the horizons of the next generation.

#### **Preface**

Hong Kong cherishes the opportunity to take part in Sichuan's reconstruction and we are heartened to see these projects coming to fruition. The participation and contribution by our students, teachers and professionals will be much appreciated for years to come.



Mr. Stephen Lam Sui-lung, GBS, JP, Secretary for Constitutional and Mainland Affairs, HKSAR

## 1.4 Ir. C.K. Mak, Permanent Secretary for Development (Works), HKSAR

On 12 May 2008, a devastating earthquake measuring 8 on the Richter scale hit Wenchuan, Sichuan. In minutes, it took away the lives of tens of thousands and destroyed the homes of many more.

Natural calamities are merciless and Heaven and Earth make no discrimination on all things, but the world is filled with love and compassion. Hard on the heels of the quake, the whole nation lost no time in the rescue efforts and in mobilizing relief support for the victims, bringing into full play comradeship and selfless care for our fellow countrymen. Following the relief work was the arduous task of reconstruction. It is heartwarming to see the Government and the whole community of the Hong Kong Special Administrative Region gave their greatest possible support to the Sichuan post-quake reconstruction work. Non-governmental organizations in Hong Kong also responded positively to the call for "government-led, full community involvement". It is gratifying that Hong Kong could do something, however small, for the victims of Sichuan.

The Yuanjia Primary School (袁家小學) in Deyang City was severely damaged in the 512 earthquake. As the result, the students had to have their classes in make-shift huts. With the concerted efforts of 512 Young Engineers Alliance and the Association of Engineering Professionals in Society, a sum of HK\$2.5 million had been raised for rebuilding the school. The two groups also joined hands with the Department of Electrical and Electronic Engineering of the University of Hong Kong (HKU) to install an on-line multimedia e-learning system for the school so that students could learn through the distance learning video system and have exchanges with students in Hong Kong.

In August 2009, teachers and students of HKU went to the School again and installed the hardware and software for an education system in the School. The modern day technology has made possible on-line linkage of the Yuanjia Primary School in Sichuan and two schools in Hong Kong, though they are thousands of miles apart. Teachers and students in the two places were able to communicate with each other through the interactive video system. The efforts of the young engineers and the HKU teachers and students who took part in the Sichuan reconstruction are highly commendable. I believe their hands-on experience also enabled them to gain better insight into the Sichuan reconstruction as well as the

educational development in our motherland. The teachers and students of the Department of Electrical and Electronic Engineering have decided to publish a book to share their experience of participating in the reconstruction work. This is indeed very meaningful and worthwhile.

In the morning of 1 September 2009, I attended the Opening Ceremony of the newly reconstructed Yuanjia Primary School. I saw the innocent smiling faces of the lively students everywhere on the new campus. Their smiles had left indelible impression on me.

On my flight back to Hong Kong, I stared at the blue sky and the white clouds but my mind kept flashing back to those smiling faces, and also the reminiscences, memories and thoughts in my university years ... HKU, China, the rest of the World ...



Ir. MAK Chai-kwong Permanent Secretary for Development (Works) Development Bureau, HKSAR



Ir. C.K. Mak giving a talk at HKU to the EEE students