

14. The Role of Government and Civilian Assistance in Providing Urgently Needed Social Services and Redevelopment Work in Emergency Situations: The Case of the Recent Earthquake in Taiwan

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I. Introduction

The earthquake that hit Taiwan on September 21, 1999 was like a wake-up call to the R.O.C. government, which soon realized the urgent need for a mid-to-long term redevelopment plan and a nationwide coordination system for emergency rescue and disaster relief. The cooperation between government and the public became extremely important as we began to pick up the pieces after the devastating quake.

Let us first look at some of the facts about this earthquake:

In the early morning of September 21, 1999, Taiwan was shaken by a

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disastrous earthquake, measuring 7.3 on the Richter scale. This was the largest earthquake to hit Taiwan in the 20th century. It was bigger than the earthquake that hit Kobe, Japan, in 1995, which measured 7.2 on the Richter scale. It set new boundaries among recorded seismic events in several aspects, having:

1. The largest displacement value of an active fault (8 meters on the surface and 12 meters with underground displacement).
2. The greatest length of surface fault (the Chelungpu fault extending more than 105 km).
3. The greatest horizontal surface acceleration (989 g).
4. The greatest extremity of course change (the Chelungpu fault shifting from a north-south to an east-west bearing near Shi-Gang).

Stricken areas covered 14 municipalities, including Taipei City, two agricultural counties – Taichung and Nantou were the most severely hit, accounting for 80 percent of total damages. The death toll from the earthquake reached 2,453 people, and more than 10,000 people were injured. More than 100,000 houses fully or partially collapsed, and over 400,000 people were made homeless. In addition, 870 schools were damaged. Economic loss reached NT\$356.8 billion (approx. US\$11.2 billion).

While bigger than the Kobe quake in terms of magnitude, the Taiwan earthquake caused much smaller loss of lives and property. The Kobe earthquake took 6,430 lives and wrecked 457,905 houses. The main reason for this relatively better fortune is that the hardest hit areas in Taiwan were rural areas where population density was much less. Moreover, it happened in the middle of the night when students were at home rather than in their more vulnerable school buildings. We were also fortunate that no major fires erupted after the quake.

However, the numbers alone can hardly portray the horror and destruction the earthquake caused. Within seconds, hundreds of buildings collapsed, an entire mountain shifted its position by several kilometers, new lakes formed, bridges buckled, and roads fragmented. Millions of households found themselves in complete darkness caused by power outages, and hundreds of thousands of them were cut off from the water supply. And since phone lines were down, no one knew exactly what damage had been done to the island.

We were shocked by the fact that modern residential buildings with reinforced concrete structure failed to pass the test of earthquake. For instance, the 'Golden Paris' Building in Ta-Li City of Taichung County was uprooted from the ground and fell backward. Two other buildings erected by the same construction company were shattered. Over 100 people were killed in Ta-Li City and most of them died in the rubble of these three buildings.

II. Rescue and Emergency Services

Rescue and relief efforts were mobilized immediately after the earthquake to provide rescue manpower, supplies and equipment, as well as shelters and medical services, to the victims.

Premier Vincent Siew arrived at the Central Disaster Mitigation Office within 30 minutes after the quake and announced several important measures. On the following day, an emergency rescue command center was set up within the central government to lead and supervise the rescue and relief efforts.

To effectively speed up rescue efforts, the vice heads of all central government agencies were assigned to local townships to help them with rescue and resettlement work. I myself was assigned to my hometown – Tungshi Town. We were fully empowered by Premier Siew to stay in the quake-stricken areas, work among the victims, and do whatever we could to solve their problems.

On the fifth day after the quake, President Lee promulgated the Emergency Decree, which empowered the authorities at all levels to shorten administrative procedures to speed up post-quake rescue and relief efforts. Effective for a 6-month period, the provisions of the decree included removal of post-quake resettlement work and public construction from the ambit of national urban planning regulations. It also ordered participation of the nation's armed forces in rescue, resettlement and reconstruction work.

The military's rescue action was highly recognized by government agencies and the general public. Ministry of National Defense had mobilized its forces for rescue immediately after the quake. They divided the affected areas into several duty sectors, where military personnel were

stationed to distribute food and other emergency assistance, and help provide temporary shelter, including military barracks evacuated for that purpose. Helicopters were sent to mountain areas where roads were blocked by landslides, bringing in medical and relief supplies, as well as transporting the badly injured to the hospital.

The military also performed the most difficult tasks, including manual digging, carrying dead bodies out from the rubble, road cleaning, carrying out disinfections, and building pre-fabricated houses. Their rescue efforts earned enormous gratitude from the victims, who showed their appreciation by bringing refreshments to these diligent helpers and putting up notices along all the roadsides to thank them in the customary Chinese manner.

1. The Central Office in the Front Line

President Lee, Vice President Lien and central government ministers spent much time in the affected areas following the quake, and therefore had a fairly good grip on the overall situation. To solve various problems, it was necessary to break through the boundaries dividing central and local government. Therefore, a central office headed by Vice Premier Liu Chao-Shiuan and made up of central government officials was soon set up in Taichung, one of the hardest-hit cities near the epicenter. During the three months of its operation, the central office distributed consolation checks, resettled the victims, managed donations, carried out epidemic prevention and disinfections, built temporary houses, assessed building safety, and demolished damaged buildings. Besides rescue efforts, the central office also proceeded with reconstruction work, including reopening schools, repairing roads and telecommunications, putting agricultural production back to normal, and providing special assistance to aboriginal people.

2. The Power of NGOs

For a long time, religious groups and other NGOs in Taiwan have dedicated their efforts to public interest. As an alternative provider of social services, they have become the symbol of civic vitality by addressing needs that are often neglected. Immediately after the quake, religious and other volunteer groups set up stations in the affected areas and provided rescue assistance. Medical teams formed by major hospitals

were sent from around the island to provide emergency medical services. Many individuals volunteered to help by transporting relief supplies to various supplies management centers. People of all ages rolled up their sleeves to donate blood. Amid the devastation of the earthquake, the humanitarian concern of the Taiwanese people, and the vitality of their civilian and religious groups, was truly remarkable and stirring.

3. Religious Groups – The Most Touching Sparks

Among the NGOs, religious groups were probably the ones with which we could find the most touching stories. The Tzu Chi Compassionate Relief Foundation, a charity organization supported by volunteers from around the country, entered the affected neighborhoods and set up a relief center within 2 hours after the quake. Altogether, they established service stations in the 13 harder-hit areas to supply hot food and drinking water. The spiritual leader of the Tzu Chi Foundation, Master Chen Yen, identified the key tasks for its relief work: to build temporary shelters, to deliver relief supplies, to prevent and control diseases in the affected areas and to carry out disinfection. The International Fo-Guan-Shan Buddhist Organization also set up a rescue center and mobilized 5,000 volunteers to affected areas. In remote mountain areas and aboriginal villages where roads were blocked, local Christian churches and priests played a crucial role in relief work.

By then, the government also began to mobilize young volunteers to join the relief efforts. The National Youth Commission recruited 4,000 young volunteers, and Ministry of Interior also organized young volunteers to assist in sorting and transporting relief supplies donated by Taipei residents.

4. Love from Around the World

We learned a great deal from foreign governments and groups that had taken the initiative to provide technical assistance. Shortly after the quake, hundreds of rescuers and experts from other countries, including the United States, Russia, Japan and South Korea, flew to Taiwan to help. Such kindness truly reflected an old Chinese saying, “Benevolence will bring good neighbors”, as indicated by a senior Taiwanese diplomat to the U.S. The Japanese government offered us one thousand units of the prefabricated homes that had been used after the Kobe earthquake. While

Table 1. Active NGOs in the 921 Taiwan Earthquake

Organization	Category	Services and Mission
Chinese Fund for Children and Families / Taiwan	Charity	Long term help for victim's children
Red Cross	Charity	Emergency rescue and temporary shelters
United Way Taiwan	Charity	Donations and financial support
Community Empowering Society R.O.C	Community	Reconstruction services
Taiwan Ta-Ti Cultural And Educational Foundation	Cultural	Social work, medical help
National Teacher Association	Education	Mobilization of teachers for community reconstruction
Yaoshan Foundation	Historical Preservation	Emergency services and financial support
Judicial Reform Foundation	Judicial	Judicial services
Taipei Bar Association	Judicial	Judicial services
Chinese Communication Society	Media	Press and media integration
The Formosan Medical Association	Medical	Emergency medical help
China Youth Corps	Social Concern	Various
921 Home Rebuild Alliance	Professional	Reconstruction planning
Urban Regeneration R&D Foundation	Professional	Reconstruction planning
The National Association Of Architect. R.O.C.(Taiwan)	Professional	Building safety assessment and advice
Lifeline Association	Psychological Help	Psychological advice
Teacher Chang	Psychological Help	Psychological advice
National Alliance for Post-Earthquake Reconstruction	Relief Integration	Resources integration
Post-quake Reconstruction Foundation	Relief Integration	Financial support, donation management
National Civil Relief Coordination and Supervisory Alliance	Relief Integration	Various consultation
The Presbyterian Church in Taiwan	Religious	Community help and agricultural harvest
World Vision Taiwan	Religious and Social Concern	Emergency rescue and temporary shelters
Tzu Chi Compassionate Relief Foundation	Religious	Emergency services, donation management, temporary shelters, school reconstruction
Ling Jion Mountain Buddhist Foundation	Religious	Emergency rescue and temporary shelters
Sister Of The Sacred Heart Of Mary	Religious	General social services and education
Association Of Dharma Drum Mountain	Religious	Financial Support, children care, medical help
The Home Makers' Union And Foundation	Social Concern	Emergency rescue, temporary shelters, employment help
Family Wellness Association	Social Concern	Various social services
The Garden of Hope Foundation	Social Concern	Temporary shelters providing
Child Welfare League Foundation	Social Concern	Children care
Peng-Wan-Ru Foundation	Social Concern	Children care and social services
Formosa Plastics Group	Business Enterprise	Donation, School Reconstruction
Evergreen Group	Business Enterprise	Donation, School Reconstruction

Taiwan had long been isolated politically, this time we received much help from the world community, which weighed humanitarianism over political interests at a time of tragedy. This show of concern from around the world brought home to us that we were not, after all, the international orphans that we had supposed ourselves to be, but we were, as we could see, cared for as much as anyone else by our fellow members of the global community. The humanitarian spirit could prevail temporarily over politics, allowing the world to hold out a helping hand to us in our time of most need. The kind assistance from international friends will always be inscribed on the memory of the people of Taiwan.

While we were impressed by the professionalism of well-equipped foreign rescue teams as we saw them in action, we also began to examine our own lack of readiness for such large disasters. An important lesson learned from this earthquake is that we must create an emergency rescue system that is capable of crisis management and disaster mitigation.

5. Emergency Medical Care

The Bureau of Health established rescue coordination teams in Nantou and Taichung counties to coordinate the efforts of the various teams of medical volunteers. The medical teams from Chang Gung Memorial Hospital instituted an effective method of sending out advance parties to identify the needs of different areas and prepare the way for the subsequent setting up of full-scale hospital stations. This enabled them to cover the widest possible area in spite of the severe disruption of transportation and communications.

Besides official assistance, civilian psychology and psychotherapy groups also organized 'Earthquake Psychological Service Groups' to help those suffering emotional distress and post-quake trauma.

III. Aftercare

Both the government and NGOs played important roles in helping the victims get their lives back to normal, and the division of labor between them became clear at this point. Several NGOs were formed to provide direct relief and rebuilding assistance.

1. The Civil Advisory Group

While the front line of the relief work relied heavily on volunteer workers, long-term reconstruction plans, both government and NGOs must work together to ensure efficiency in resources integration and reconstruction. Aiming at this, Premier Siew asked Dr. Lee Yuan-Tseh, President of Academia Sinica and a highly-respected opinion leader in Taiwan, to form and lead the Post-quake Reconstruction Civil Advisory Group, which was to be composed of 50 or more experts. The main task for this group is to collect professional opinions from experts in different fields and provide the best solutions and policies for government and civil groups to complete reconstruction work and ensure that a high level of disaster precaution is put in place so that the people of Taiwan will be well protected and able to live free of fear. The Post-quake Reconstruction Civil Advisory Group also has a significant role as a model for effective communication and co-operation between the government and the whole of society.

2. Post-quake Reconstruction Foundation

After the quake, the Executive Yuan set up a special account to receive donations, which amounted to more than NT\$11 billion (approx. US\$ 355 million). To ensure effective and proper use of the fund, the Executive Yuan established an oversight committee, the Post-quake Reconstruction Foundation. The Foundation was to coordinate the use of the fund, mainly to help with reconstruction work in the affected areas, provide assistance to children orphaned in this quake, and distribute subsidies to the elderly .

3. National Civil Relief Coordination and Supervisory Alliance

Besides the above-mentioned bodies, there is another civil organization- “National Civil Relief Coordination and Supervisory Alliance”, also lead by Dr. Lee Yuan-Tseh. This alliance is consisted of groups specialized in social welfare, urban planning, local cultural, accounting, law, medicine and engineering. They jointly monitor use of donation received by private organizations to ensure its appropriateness and legitimacy while at the same time help match the allocation of relief

resources with the needs of affected areas to ensure maximum effectiveness of relief efforts.

4. The Government

The central government set up the Executive Yuan Reconstruction Commission, charged with conducting an overall evaluation of the situation and providing unified direction to the whole of reconstruction efforts. Fourteen task forces under the commission are each responsible for a separate aspect of reconstruction work.

Information on the progress of rescue and relief work was not only shared within the government, but also made known to the public through the Post-quake Reconstruction Commission website.

After the earthquake, central government agencies each adopted an affected area, where the deputy chiefs of the adopting agencies were later stationed in order to assist local relief work. Some local governments also assigned staff to share rescue work with volunteer workers. For instance, the Taipei City Government mobilized manpower and volunteers to man three command centers, one for information, one for logistics, and one for disaster-zone operations in Nantou. The Civil Affairs Bureau was in charge of the operation. Donated supplies were sorted by volunteer workers and then delivered by trucks to areas where these supplies were needed. Donated funds were used to purchase living necessities, which were sorted and then packed into one-week relief kits. During the first nine days, more than one thousand truckloads of such relief goods were delivered to the disaster areas. In order to assist the reconstruction work, the Taipei City Government also set up service centers in three harder-hit towns. Meanwhile, government personnel were stationed in these centers on a rotational basis.

Five counties of southern Taiwan also launched the 'one county for one township' Campaign. For instance, Pingtung county took up the cause of Puli township in Nantou county. In the first phase, volunteer firemen, policemen and others formed teams to carry out rescue work in Puli. In the second phase, volunteers performed administrative services for the victims, while social workers went among the victims to ascertain what were their needs. Such across-the-board voluntary mobilization of public-sector human resources for post-disaster rescue and relief set a splendid and reassuring new precedent for our country.

Prior to the earthquake, many had come to believe that the Taiwan people had abandoned their concern for one another as they galloped ahead on the back of racing economic development. But the outpouring of help and concern from all sections of the population throughout the island proved this untrue and attested to the goodness of heart of the Taiwan people. At the same time, the relief effort also showed how NGOs are set to become a rising force in the 21st century.

Our central and local governments were deeply impressed by the NGOs' mobility. President Lee and government agencies at all levels stressed that reconstruction work must take the "bottom up" approach. On January 14, 2000, the Legislative Yuan passed into law the Temporary Statute for 9-21 Earthquake Reconstruction, which stipulated that the reconstruction work should be led by local authorities, participated by private sectors and supported by the central government. In other words, NGOs would play an equally important role in the reconstruction phase as they had in the rescue and relief phase.

Given the large number of parties involved in the reconstruction, there have been occasional clashes of opinions. In Tong-shi Township, the central and Taichung County governments disagreed on the temporary housing solution. The latter agreed to seek proper locations for Tzu Chi Foundation to build pre-fabricated houses for victims, but the head of the Construction and Planning Administration insisted that the project should wait until a comprehensive plan is completed. To the Taichung County Government, this policy would hamper resettlement work. Finally Vice President Lien mediated the matter in favor of the Taichung County Government and instructed the Construction and Planning Administration to find another location for its own pre-fabricated housing project.

Although the work of civilian groups gained high recognition from the government and the public alike, a key issue to be worked out in the future is how to most efficiently integrate the NGO role in disaster relief to make sure that all available human and material resources are put to optimal use.

IV. Reconstruction and Assistance

Government provisions for a subsidy scheme for victims and a reconstruction plan for damaged areas.

1. Executive Yuan Reconstruction Commission

As soon as the Emergency Decree had been proclaimed, the Executive Yuan promptly laid down a clear demarcation of responsibilities among the various central government agencies, so that the military and the central and local governments could work together smoothly and effectively in carrying out relief and resettlement work. The central government also established the Executive Yuan Reconstruction Commission, convened by Vice President Lien. Under the commission were 14 task forces formed by various agencies of the Executive Yuan. Besides emergency rescue and relief work, the commission was charged with pursuing six long-term reconstruction goals:

- a. To mold a new society based on caring and mutual help.
- b. To forge a new community-building consensus.
- c. To create a new environment for sustainable development.
- d. To ensure that all urban and rural areas would be better able to withstand earthquakes and other disasters.
- e. To develop diversified local industry.
- f. To create rural communities combining rustic appeal with full self-sufficiency.

2. Provisional Statute for Post-quake Reconstruction

Because the Emergency Decree would remain valid for only six months, the Executive Yuan drafted the Temporary Statute for 9-21 Earthquake Reconstruction to cover the continuation of reconstruction over a five-year period. Among the main provisions of the statute are those for rebuilding disaster areas, rehabilitating victims and restoring their livelihoods, renovating cultural assets, encouraging private participation in reconstruction work, extending tax reductions and other financial benefits, simplifying administrative procedures, and making financial provision for the cost of reconstruction.

3. Guidelines for Reconstruction

The central government, aiming to provide suggestions for local government's reconstruction work, proposed the 'Guidelines for Post-quake reconstruction'. Many Japanese experts were surprised to see

the early start of our reconstruction. In Japan, it was not until six months after the earthquake did reconstruction planning begin. Yet, we started up within one month.

When the public gradually recovered from panic, the third phase, i.e. reconstruction, was just about to start. In this phase, problems were wider in scope and more difficult to handle. Tasks included consoling the injured and holding memorials to the deceased, resettling victims, disbursing relief and emergency funds, providing soft loans to house purchase by victims, handling tax matters and bounced check problems, preventing and controlling epidemics, supplying daily necessities, stabilizing commodity prices, providing labor employment assistance and reopening the schools.

In addition to putting the utmost effort into meeting the immediate needs of the victims, consideration had to be given to the long-term development of the quake-hit areas. We obtained considerable breadth of expert advice on reconstruction and community planning, as we searched to find the best approaches, not just to restoring what had been before, but to forming in its place a safer and more ideal community environment. That is to say, while meeting the first pressing needs of the earthquake victims' calls for urgent action and solutions, reconstruction and future development must be approached with the long term in mind.

4. School Reconstruction Work

Many schools were badly hit by the earthquake. In Nantou County, more than 180 schools were severely damaged. Around Taiwan, some 870 schools sustained damage. The total cost of repairing and rebuilding them will be at least NT\$37.4 billion. Fortunately, a large amount of civilian resources have been provided for this purpose. In response to encouragement from the Ministry of Education for private-sector participation in school rebuilding, many non-governmental organizations have volunteered contributions. These various foundations and charitable groups have not only made available billions of dollars in monetary donations, but have also joined it with the highest levels of efficiency and quality in carrying out the work. For instance, Taiwan Plastics Corporation has "adopted" the rebuilding of 16 schools, and the Evergreen Group has contributed NT\$300 million for erecting stronger and safer buildings with reinforced-concrete structures.

5. Measures for Reconstruction and Resettlement Work

The central government announced seven main measures for reconstruction and resettlement:

- a. Government shall provide loan support to help victims purchase residences elsewhere.
- b. For buildings damaged and isolated from others, the owners are encouraged to rebuild at the original locations.
- c. For damaged buildings neighboring each other, the owners are encouraged to pool their land and rebuild together.
- d. Landowners may contract developers of their choice to rebuild in accordance with government's urban redevelopment plan.
- e. Under the urban plan, the government may select developers and investors for reconstruction projects, in which affected households may choose to participate.
- f. The government may acquire through expropriation and then reallocate or sell the finished buildings back to the original landowners pursuant to their entitlement,
- g. Based on the urban redevelopment plan, the government may leave the land in trust with a specialized bank, and then return to the original owners their share of the property upon completion of the land development project.

The choice of any of the above reconstruction measures is often determined by the severity of damage and landowner's preference. What we face is a vast reconstruction challenge. For instance, in Tungshi township alone, there are 9,000 fully or partially destroyed houses plus schools and public facilities to be rebuilt, much more than what the government could afford. Therefore, government funding is mostly used to build a disaster-proof system and to repair public facilities, which are important to the entire township.

6. Subsidies and Loans

One of the most difficult aspects of reconstruction is ensuring that loans are made available to those in need. Immediately after the quake, the Central Bank announced the allocation of NT\$100 billion (US\$3.2 billion) as emergency loans for reconstruction purposes. Each

quake-displaced household could borrow up to NT\$3.5 million, of which NT\$1.5 million would be interest-free and the other NT\$2 million subject to a special low rate of interest. Repayment could be spread over a term of up to 20 years, and recipients could use the loans either for rebuilding their homes or purchasing new ones.

Under the provisions of the Temporary Statute for 9-21 Earthquake Reconstruction, financial institutions can negotiate with victims to absorb outstanding housing loans or waive or reduce interest payments, and apply to the Central Bank for subsidies to cover their losses.

Upon promulgation of Provisional Statute for Post-quake Reconstruction, affected homeowners may restructure their existing housing loans with their banks or have their mortgage interest rates reduced or removed. Banks are allowed to claim interest loss and seek compensation from the Central Bank.

In some cases, victims have been unable or unwilling to participate in collective plans to rebuild their housing complex, and thus put the projects on hold because of a lack of funds.

Currently, the government tries to raise funds as credit guarantee for those communities that are unable to provide collateral to the bank. These financial assistance measures are rather rare in other countries that suffered natural disasters.

7. Other Subsidies

Other than loans, the government also provided several subsidies: Owners of fully destroyed houses may each receive NT\$200,000. Those whose houses were partially destroyed are given NT\$100,000 each. The rent allowance for tenants of collapsed buildings is NT\$3,000 each. Each household may apply for a construction design allowance of NT\$50,000. During the reconstruction period, Owners of destroyed buildings are exempt from property tax. Unemployed victims may trade their labor for other benefits provided by the government. More subsidies are granted under the urban redevelopment plans. These subsidy measures are mostly funded by the central government and 9-21 Post-quake Reconstruction Foundation.

V. Rebuild Communities through Urban Redevelopment

As the earthquake put us in crisis, it also brought opportunities. Many townships and villages were completely destroyed, yet were thus given great opportunities to recreate themselves. To rebuild is not only to recover, but also to create a new and better environment.

Though assistance poured in from all quarters to help ensure the resettlement of victims within a short time, a far more difficult task is reviving the communities in the quake-ravaged areas. It involves many complicated issues of land rights, laws, funding, and the wishes of the community residents. It presents a much greater challenge than the repair of roads and bridges.

This earthquake caused new problems in land ownership and registration, and the reconstruction work is rather difficult to proceed with. For example, boundaries between pieces of land were altered by the earthquake; reconstruction may cause disputes between developers and residents; inheritance becomes a problem for cases in which the earthquake killed the entire family; landowners are divided on how to rebuild; and reconstruction becomes extremely difficult when it involves both state and private properties. Furthermore, while the central government already announced loan incentives, their implementation remains difficult because victims can no longer afford the mortgage payments; banks' rights were lost due to destruction of collateral; and most banks are reluctant to grant new loans.

1. Urban Redevelopment

The newly promulgated 'Urban Redevelopment Statute' could be extremely helpful to post-quake reconstruction in that it allows a collective reconstruction project to proceed with the support of only the majority of community in question.. In addition, this statute provides many incentives, including tax deductions. For community redevelopment projects involving multiple ownership and a large number of residents, the Statute may be the most direct and effective solution.

In Tungshi Township where I was assigned to help, there were many cases for which the Urban Redevelopment Statute had to be invoked to

make reconstruction possible. For example, one housing complex that contained 56 units was demolished because of severe damage. Two of the owners were unwilling to reconstruct due to bad credit problems of their own, but all the others agreed to reconstruct by pooling their funds together. As an urban redevelopment case, the project would be able to proceed with consent of over two-third of the owners. Upon completion of the project, the two units whose original owners refused to cooperate would be sold to cover the building cost.

Another case in Tong-Shi involved private dwellings that enclosed a proportionately small area of public land. Again, if it were not for the new statute, the private owners would not have been able to go ahead with construction.

The main problem was that, with the new statute having been in effect for less than a year and actual work under its provisions not yet begun, most local officials and residents alike had little idea of what exactly urban redevelopment was. Moreover, none of the local governments had set up supervisory committees for such work, or had any experience of how to handle related matters. To solve this problem, the central government set up a special team to provide professional training and instruction courses, as well as providing guidance on a case-by-case basis. I believe that, within the near future, we will be able to see model communities rebuilt under the application of this new system.

2. New and Sustainable Community

Incorporating urban redevelopment methods into reconstruction not only can resolve technical problems stemming from land rights complications and the reluctance of some owners to participate, but can also create better, higher quality, sustainable communities rather than just recreating the old. Through this approach, we can opt for steel structures that offer better quake-resistance and are more environmentally friendly; we can use the most energy-saving and low-polluting materials; we can install high-tech fiber-optic networks; and we can put in ample areas of public open space.

3. Conclusion

More than a year has passed since the disastrous earthquake hit Taiwan last year. We still have a long way to go before we reach the final destination of reconstruction. There are three points that I would like to stress:

1. The objectives of post-quake reconstruction can only be achieved if the government, communities, experts, developers, and financial institutions all work hard together in common cause.
2. We must seize this opportunity to combine reconstruction with the aim of creating a higher quality urban environment and pursuing sustainable development.
3. Rather than making overly elaborate plans in quest of unobtainable perfection, we should simply get on with doing the work as best we are able to now.

Finally, I hope this report has helped you understand how our government and the civil groups have joined their relief efforts in the wake of the devastating disaster. With this report, I hope that lessons can be drawn from our experience to help minimize the damage caused by any future natural disasters. We look forward to the day when Taiwan, after years of reconstruction, emerges as a new and sustainable homeland, with balanced urban and rural development.

