International Disaster Management Symposium 2009

Disaster-Resilient Regional Development Strategies in the World

"From Hyogo to the World" January 19th, 2009 Kobe, Japan

International Disaster Management Symposium

Recovery Reports from China and Iran
Keynote Speech: "Disaster Assistance Across the Globe"
Activity Reports from Three Project Countries
Panel Discussion: Disasters and Regional Development

United Nations

International Disaster Management Symposium:

Disaster-Resilient Regional Development Strategies in the World
- From Hyogo to the World -

Proceedings

January 19th, 2009
Yomiuri Kobe Hall, Hyogo Prefecture, Japan

Conveners:
United Nations Centre for Regional Development (UNCRD),
Disaster Management Planning Hyogo Office

Yomiuri Shimbun Osaka

International Disaster Management Symposium Steering Committee:
Hyogo Prefecture; Kobe City; The Hyogo Earthquake Memorial 21st Century Research Institute;
United Nations International Strategy for Disaster Reduction (UNISDR) Hyogo Office;
United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) Kobe;
International Recovery Platform (IRP); Asian Disaster Reduction Center (ADRC);
JICA Hyogo International Center; Citizens towards Overseas Disaster Emergency (CODE)

Hyogo Safety Day

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Special thanks and dedication
to Yomiuri Shimbun and the members of the
International Disaster Management Symposium Steering Committee
And the many volunteers who contributed to the organising effort.

Editing Team:
Hyogo Trust Fund X (2008-2009)

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Welcome Address from UNCRD

Kazunobu Onogawa
Director, UNCRD

Good day everybody. As introduced, I am the Director of UNCRD, Onogawa. As you may all know, it has been 14 years since the Great Hanshin-Awaji Earthquake. It has also been 10 years since the time UNCRD established the Disaster Management Planning Hyogo Office, based on the experiences and lessons from 14 years ago.

As one of the major activities of the Hyogo Office, we have been convening the International Disaster Management Symposium every year, and this year, we are once again honoured with the participation of Governor Ido from Hyogo Prefecture and also President Nakamura from Yomiuri Shimbun (Newspaper), Osaka headquarters. We also have today the special honour of having the participation of Ambassador Araghchi from the Embassy of the Islamic Republic of Iran. Thank you very much to all of you for your participation despite your busy schedule.

In this International Disaster Management Symposium, we aim to address community based disaster management and international cooperation for information and idea exchange towards disaster management, with the objective of achieving regional development, the original theme of the UNCRD. Today, we have 20 participants from all over the world, including specialists, members of NGOs, and government officials. We also have more than 100 participants from the local Hyogo Prefecture and Kobe City.

In today's Symposium, we hope to report, especially to the local participants from Hyogo Prefecture and Kobe City, how the lessons and experiences from the Great Hanshin-Awaji Earthquake is being passed on and applied to disasters and recovery abroad, and also how disaster aid from the people of Hyogo is being effectively applied in other parts of the world that have been affected by natural disasters.

I hope that this Symposium will also prove to be a good opportunity for participants both local and from abroad to exchange information and experiences from a broad perspective towards promoting research and policies for implementing sustainable regional development. Disaster management is an essential component for sustainable regional development. At the same time, through the topic of disaster management, other important issues such as gender and discrimination, environment, and other important social components for development can be investigated, offering a new viewpoint for regional development organizations such as ours towards the implementation of new development strategies.

We hope also that considering these important issues concurrently will provide a sustainable path towards the greatest objectives of the UN, the implementation of the Millennium Development Goals (MDG) and the Hyogo Framework for Action (HFA). Furthermore, as we have seen in the Hyogo experience, international cooperation is a critical component for disaster recovery and reducing disaster risk. Today as keynote speakers, we have Professor Murosaki from the Kwansei Gakuin University, Mr. Yazdanpanah from Iran, and Mr. Yuan from China who will talk to us about the relevance of international cooperation and disaster management and also its relationship to regional development.

Thank you very much for your participation today. On behalf of the host, I would like to extend our gratitude for your participation. I hope that you find this symposium and the discussion in the symposium very interesting and fruitful.

Thank you very much.

Opening Remarks from the Hyogo Prefectural Government

Toshizou Ido
Governor, Hyogo Prefecture

As we have just marked New Years, I would like to offer traditional greetings to all of you. We are very pleased to be able to convene this symposium, the International Disaster Management Symposium 2009, once again, and I would like to express my thanks to President Nakamura and Director Onogawa. Last year when addressing this Symposium, I wished strongly that we would be able to have another symposium in the coming year and this was made possible, thanks to your support.

This is 9th Symposium in the series, and if we can hold this next year that will be its 10th year, and as they say, 10 years is one period, so I am pretty sure that we would be able to convene this Symposium again next year for the 10th time. Next year is also the 15th anniversary since the Great Hanshin-Awaji Earthquake. In that sense, we would like to ask the organizers for another symposium next year to continue to exchange valuable ideas and experiences while focusing on yet another important theme.

As I just mentioned, 14 years have now passed since the Great Hanshin-Awaji Earthquake, and 14 years mean that there are increasing numbers of people who do not have firsthand knowledge of the earthquake. Children under 14 years of age completely lack experience from the earthquake, and including those who moved to Kobe and Hyogo after the earthquake, those who lack direct knowledge now account to about one-third of the population.

As such, if we ask whether the experiences and lessons from disasters are passed on as a common resource, even disaster effected areas like Kobe cannot guarantee this, and so we must reaffirm the importance, as a formerly disaster struck area, to carry on these lessons and experiences. The day before yesterday on January 17th, we marked the 14th year since the Earthquake, and we reaffirmed the need to communicate this topic. We will be marking the 15th anniversary next year, so during this year, we would like to brush up this goal of further communicating and conveying the past experiences by organizing symposiums and forums every month.

There have been many research reports, surveys, fieldwork, and the articles that have been shared within certain research groups, but it seems to be still difficult to further disseminate these to the general public, the citizens, or the people in the prefecture. So we would like to take this year to disseminate these findings and past experiences through symposiums and forums, so as to make them a common resource. Furthermore, we have organized the experiences and lessons from the Great Hanshin-Awaji Earthquake in 100 categories and are planning to publish a report with two pages dedicated to each category, elucidating what was learnt during the process of recovery and revitalization, successes, and remaining issues. We should be able to release the publication by the end of March, so we hope that all of you will take a look at it to be reminded of what the Hanshin-Awaji Earthquake was like.

When January 17th comes around next year, we will mark another milestone – five years, ten years, and now 15 years, and in this sense, we would like to mark this as a good opportunity to disseminate experiences and lessons. We hope to do this also with the support of the Follow-up Committee led by Professor Murosaki, who will give us a keynote speech later, and create a 15th Anniversary project plan through which, I hope, we can commit ourselves to the task of communicating and passing on.

Last year, large disasters once again struck many parts of the world. The earthquake in Sichuan Province was a major disaster that caused major damage, and the earthquake in Iwate and Miyagi surprised us. Not only this, but the damages from the cyclone that struck Myanmar was also devastating. In this sense, disasters and our life are inseparable, a relationship we cannot escape from, and therefore it is important how well we can be prepared for disasters. How can we be prepared before disasters and also how quickly can we recover and revitalize after a disaster strikes. These two issues seem to be completely different, but they are two sides of the same coin. We must be prepared before the disaster for quick recovery and revitalization. Of course, it is best if we can be

prepared to have no damages, but since that is impossible, we must be apply appropriate measures to be able to recover even after experiencing damages. In this sense, pre-disaster preparation is often discussed in the premise of how to reduce disaster damages, but I would like to emphasise that it is also important to consider how smoothly and quickly recovery can be implemented. Later, we will have many reports related to disasters, but from our point of view as a disaster struck area, these issues are not unrelated. We must consider what we must do as disaster struck areas, and we have been doing this from before, but I hope to be able to continue on investigating this theme with all of you.

Later, we will have a few words from Ambassador Araghchi regarding the Bam Earthquake disaster and how the people of Hyogo Prefecture, although modest, collected support funds for their recovery. The Ambassador will report to us the results of how, using these support funds, we have supported the anti-seismic retrofitting of school buildings and disaster education. It is a pleasure for us that our support has successfully been passed on, especially for improving the environment for elementary school students, who will come to build the future of their society.

Last but not least, I would like to reiterate the necessity for everybody to have a common understanding of the importance to be prepared for disasters, and how everyone must take part in reducing disaster risk through their particular roles, and finally, I would like to wish you all a very prosperous and healthy new year.

Thank you very much.

Remarks from Yomiuri Shimbun Osaka

Jin Nakamura
President, Yomiuri Shimbun Osaka

Thank you very much for your kind introduction. My name is Nakamura from Yomiuri Shimbun, Osaka. Welcome to the International Disaster Management Symposium. From overseas we have participants from Sri Lanka, Bangladesh, Nepal, and other parts of the world far away from Japan. Also we have the Ambassador from the Islamic Republic of Iran and his name is Araghchi, which is a very familiar name that sounds like a Japanese name.

As we approach January 17th every year, we discuss disaster management through various media and also how to care for the disaster victims, especially the psychological care for the bereaved. It thus is very significant that we are able to hold this International Disaster Management Symposium in Kobe every year. When we look around the world, there are very few cities that have experienced great disasters and also continue to hold these kinds of international gatherings. I feel that one of the mission for Yomiuri Shimbun journalism is to provide reports on devastating earthquakes and disaster journalism. The building, the Kobe headquarters building, which is today's venue, was built after the earthquake and I am glad that it is contributing to disaster management and research in this way.

The Yomiuri Newspaper not only convenes symposium and writes articles, but we also engage in other various activities. One of these is the Yomiuri International Cooperation Award, which we warded last year in October. This was awarded to the Kobe NGO, Citizens for Overseas Disaster Emergencies (CODE) from Kobe. 15 years ago, Yomiuri Shimbun started this award with the aim of creating a Japanese version of the Nobel Peace Prize. I think it is very significant that CODE was selected last year since this NGO was born in Kobe City. In the newspaper, we also introduced them in the headlines as "Giving back from the Hanshin Awaji Eathquake – From Aid Supplies to Disaster Education, Intelligent NGO Activities". As another example of Yomiuri Shimbun's activity, this is also from last September, but we produced several thousand copies of visual disaster management education materials and sent it to local administrations and schools. These were produced with the aim of "Visually Learning Earthquake Lessons" and learning "Disaster Experience, Evacuation Activities, and Experiences of Living as a Refugee". This was produced in cooperation with Yomiuri Television, Kobe City, and Kobe University. As these examples show, Yomiuri Shimbun is also initiating activities as well.

Disaster issues, as the governor mentioned, should not only focus on post-disaster recovery issues but also on pre-disaster activities in the context of recovery and we should not only pay respect to the dead, but also provide mental care to the people who have survived. Disaster mitigation and risk reduction also requires a holistic implementation of hardware and software measures such as community cooperation and also human care, which refers to assistance for people and human-to-human connection. As such, there is a very wide and deep range of issues that need to be covered.

It is said that the Japanese archipelago has come in to the active age, the seismic active age. Also, due to global warming, the natural disaster is becoming more frequent and the scales are greater. Therefore, we must be very more prepared to be resilient. You can read that through various newspapers and such on this topic, and as a newspaper publisher, we would like to take up these kinds of issues more frequently in a more broad perspective.

Mr. Kishimoto, who was the head of the Kobe station of the Yomiuri Shimbun when the Great Hanshin-Awaji Earthquake occurred 14 years ago, is now the chief editor at Osaka headquarters. Through his disaster report, he has developed himself as a journalist based on his experience and lessons from the disaster and I think those experiences have contributed to his promotion to become chief editor. Another important manager of Yomiuri Shimbun had also experienced the head of the Kobe Office of Yomiuri Shimbun in Osaka. So it seems that disaster reports contributes to the promotion of the people who work as journalists and along with municipalities, research institutions, universities, and also the community, the private sector, and so forth, we would like to continue to contribute to the building of disaster resilient society in the future.

Thank you very much.

Special Guest Address

Seyed Abbas Araghchi
Ambassador, Islamic Republic of Iran

Good afternoon ladies and gentlemen. I am from the Islamic Republic of Iran and my name is Sayed Abbas Araghchi. However, my Japanese friends prefer to call me Araguchi, which is very similar to Japanese. But I have to say I like it, this luck to somehow share a Japanese name.

This is my first visit to Kobe and today we are also marking the 14th anniversary of the earthquake in this city, so let me start by paying my respect to the victims of the Kobe City and other cities close by. I think the best way to pay respect to the victims of the earthquake is to carry on the lessons and experiences in order to avoid more casualties and to reduce and alleviate disaster damages in other parts of the world, especially in other cities where people are living under the threat of a possible earthquake. I think this is exactly what you are doing here to share the experience, which was learned from Kobe and other earthquakes in Japan, to share it with other nations and to work for the reduction of the magnitude of disasters in other parts of the world. And for that I am very grateful to all of those who have contributed to the organization of this gathering. I thank UNCRD and its Director Mr. Onogawa and also thank the Hyogo Prefecture and his Excellency Ido, the Governor of this Prefecture, the Yomiuri Shimbun, and NGOs and others who have contributed to the organization of this symposium.

As was mentioned by Governor Ido, there was a big earthquake in Iran in 2003 in the City of Bam in which tens of thousands of people were unfortunately killed. Since then, we have received help and assistance from the Japanese government and Japanese people, especially from the people of Hyogo Prefecture and the City of Kobe. They assisted the people of Bam right after the earthquake and then in the process of rehabilitation and reconstruction of the city. And for that again we are very thankful to them. My special thanks go to one NGO called “Sar Nevesht Saz” or SNS, a Japanese NGO with an Iranian name, which has done a lot for the City of Bam. I am very thankful to Mr. Okubo and all of his efforts to implement the building of new schools in that region and to reinforce and strengthen the present schools and other buildings in the City of Bam.

I do not want to take your time, but I just want to express the appreciation of the Iranian government and its people to the government and people of Japan for helping Iran in that earthquake. Iran is also a country that has the possibilities of further earthquakes, and I am very glad that we have been to establish some social cooperation between the two countries in order to learn from the experiences of Japan. And we, in the Embassy, will always be available and ready for promotion and expansion of this kind of cooperation between the two countries.

This year of 2009 is the 80th anniversary of diplomatic relations between Iran and Japan. Although, the cultural exchanges between the two nations go back to nearly 2000 years ago, we mark this year as the 80th year anniversary of diplomatic relations between the two countries. I hope this year we can witness more cooperation in all fields, political, cultural, and economic fields between the two countries.

I wish you a happy new year, since we are at the beginning of this year; I wish you a prosperous year and prosperity for all people of the world. I wish a year without earthquake and I wish a year without human-made disasters, without any casualties out of aggressions, and bombardments of children and women and civilians in different parts of the world.

Thank you very much. I thank all of the organizers and I wish you a very successful symposium.

Arigato gozaimashita.

Special Case Report 1

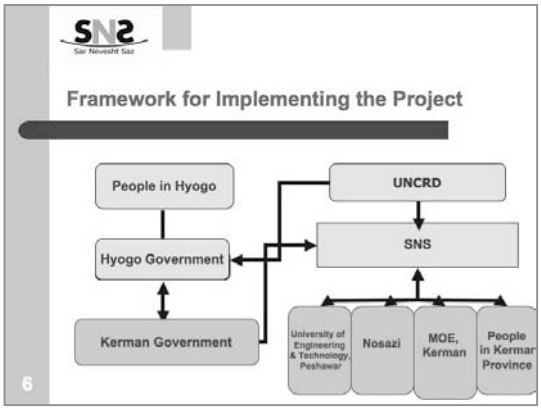
School Reconstruction through Support from Hyogo

Mohammadreza Yazdanpanah, Programme Officer
SNS International Disaster Prevention Support Centre

In 2003 on December 26, in Bam of Kerman Province, there was a great earthquake. Magnitude 6.3 was the scale of the earthquake. It is said that more than 40,000 people were killed in this earthquake. And also more than 80% of the buildings were destroyed.

Please look at this photograph. As you can see, most of the buildings that were built with adobe and bricks collapsed. Many schools also collapsed. I will explain the objective of the project implemented through the Hyogo Kerman Friendship Fund and its framework. The objective of the project was to build an infrastructure to fight against disasters in Kerman. The second objective was to make schools earthquake resilient. Thirdly in order to disseminate anti-seismic construction methodology, we aimed to develop a curriculum for this kind of education. Fourthly, the objective was to produce an education video for disaster prevention. Lastly, the objective was to convene a symposium on disaster prevention for the community members.

I will now explain to you about the framework of this project. The people of Hyogo and the Hyogo government provided us support after the Bam earthquake and we also received much financial aid. The government of Kerman province asked UNCRD to oversee the implementation of the recovery project run by this financial aid. As SNS International Disaster Prevention Support Centre had a close relationship with the Kerman government from the past, SNS took charge of the field implementation of the project. SNS also cooperated with the University of Engineering and Technology, Peshawar and other organizations to proceed with the project.



Now let me introduce to you the expected outcomes of the project. First of all, the project aimed to expand and disseminate information and techniques about strengthening and retrofitting buildings including school buildings. Secondly, it aimed to provide safe environments for the children through education concerning disaster resilience. And thirdly, it aimed to build up an educational environment for earthquake-safe design for young construction engineers. As for the children, we were able to provide a safer educational environment.

Next I would like to talk about the sustainability of the project. First of all, the project activities aim to raise awareness of the people in regard to disaster prevention various visual aids. Secondly, sought to disseminate anti-seismic construction methodology through a local NPO, which was established in order to educate the people with safer building techniques and to increase the number of anti-seismic buildings. We also want to educate the construction supervisors in cooperation with the Housing Foundation.

Regarding the implementation of our project, the main program was the retrofitting of the school buildings. One goal was to strengthen and retrofit three schools in Kerman province. To strengthen and retrofit school buildings, chicken mesh on the walls and reinforced concrete to the roofs were applied. We also we did research on building damage by the Bam earthquake and retrofitting efforts with Dr. Qaisar Ali and Dr. Ali Khaki and we were able to publish a report on strengthening and retrofitting including in English and Farsi.

Please look at this photograph, this is Dr. Ali Khaki, Dr. Qaisar Ali, and Mr. Imai from Japan, cooperating in order to conduct the first feasibility study. This is the photo of anti-seismic retrofitting of the school walls using chicken mesh. Chicken mesh was also used to retrofit and strengthen the walls in one of the schools in Jiroft. In Ravar, where we reinforced the roofs, reinforced concrete was used. As you can see, this is a two-story building

and the pillar was reconstructed in order to support the walls. This is after the retrofit process in school in Jiroft. This is a retrofitted school building in Bam.

We have also developed a curriculum for teaching earthquake-resistant design for a construction course in Shahriyari Technical School, Kerman. We participated in the development of the curriculum from the initial process and all concerned school teachers participated in the development of the curriculum. As a result, we published a textbook for teaching earthquake-resistant design in Farsi and we also installed a compact shaking table.

This is a photograph of the faculty members working on the curriculum. We have not only conducted surveys and researches, but also practical training. After practical training, we also repeatedly provided theoretical education. We were also able to produce a video clip in cooperation with the people of Bam. The affected people of Bam cooperated and we also used original music composed by a professional composer who is a graduate from Kobe College. This disaster prevention video was first produced in Farsi then it with subtitles in English and Japanese. We have also published a guidebook to accompany the video in Farsi, English, and Japanese. These videos have been distributed to schools in Iran.

We have also conducted an earthquake prevention seminar for the local people to report on our project. These seminars were for adults and some other seminars were for children. The seminars were held in Bam and Jiroft.

Last but not least I would like to extend my gratitude to all of the participants of the Symposium and also to SNS International Disaster Prevention Support Center and the citizens of the Hyogo Prefecture. Especially to Governor Ido, thank you very much for your kindness. Thank you very much for your attention.

The ground floor level of the Symposium venue was utilized to display reference materials on community based disaster management, gender, and regional development by various UN agencies and NGOs, which were made available for public viewing.

International Disaster Management Symposium 2009: Exhibitions

Interactive exhibits and reference material were available for the over 200 participants who came to the Symposium, held on January 19th, 2009 at Yomiuri Kobe Hall.

Some items on display included disaster management education materials such as games and posters produced by UN/ISDR, Indonesian government, and booklets and users guide for sustainable disaster management strategies and gendered community participation.

Special Case Report 2

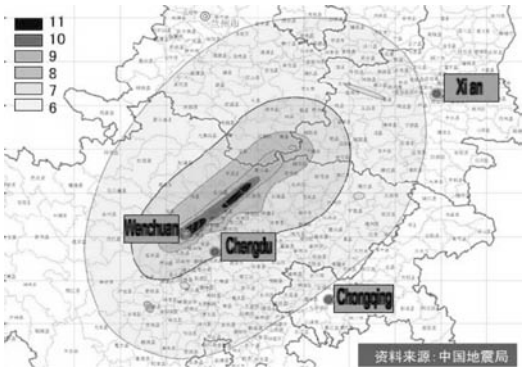
Current Rehabilitation Process After the Wenchuan Earthquake

Yuan Xin
Vice-Director, Beijing Tsinghua Urban Planning & Design Institute

Distinguished guests, good afternoon. My name is Yuan Xin from China from the Urban Planning & Design Institute, in Tsinghua University. Today I am honoured to be here and to take advantage of the opportunity to share our experience to everyone about our work in the Sichuan earthquake.

In recent years, many nature disasters have occurred all around the world. This has made post-disaster reconstruction a topic under greater focus with a sense of panic-like urgency.

This map indicates that the scale of the earthquake at the epicentre was, which was 11 according to the authority of CEA. This map covers more than 500,000 square kilometres. As you may already know, this is the map of the Chengdu and Dujiangyan. After this earthquake, there was the phenomenal and unprecedented damage to buildings and human lives. All of these photos were taken from the most devastated area. This school building was newly built but collapsed after the earthquake. 85,000 people were killed and more than 15,000 people were missing after the earthquake.



Immediately after the earthquake there was a lot of impact on the trade and other issues. One week after the earthquake, the hardest hit area started to see temporary housing and tents. Back to then, the roads in this affected area had just started to recover and these pictures show the damage done to the infrastructure including the roads. There was also damage done to the grid line and electricity so the emergency communication measures and the emergency water supply were distributed to the affected area. Water supply was distributed by the troops, as well as the transportation of the affected people.

This photo was taken on May 26th close to the epicentre showing the tents for affected residents. This photo was taken at the same location but on June 6th, and now the tent was replaced with temporary housing to house victims for a longer period of time. Most of the affected people are farmers living in scattered rural areas, so it was difficult to concentrate temporary housing locations.

So, the government also helped the people construct their own shelters on their own in the place where they live. This picture shows such temporary housing constructed by them.

In the next photo, it shows temporary housing partly built by the government. We took this photo because one potted plant outside the tent impressed us a lot. Back then, the people lost everything but having the potted plant here – this kind of showed hope toward the future for their lives and this greatly impressed us.

Next we introduce to you the governmental level projects for recovery and its main elements. These projects are based on the two assessments. One is the assessment to the secondary disaster damage. In addition to technological and engineering support, the assessment of what was happening on the ground after going there was actually the most important factor. If we could establish damage assessment on the ground, we would be able to know which part of the area will be the safest and which area will be the most dangerous in the

future. The other is the assessment report on the ecological system at the site. Referring to these report, we established the recovery plan and which part of the area we should reduce the population.

The recovery plan at the governmental level covers 132,000 square kilometres and the most damaged areas are pretty much covered under this plan. Depending on the topography of the affected area, we classified the area into three groups or regions. As this map shows, there are different characteristics for each region. We had different measures to take in different regions and we planned accordingly. As the map shows, in the plain area, the town, the infrastructure has already been developed from before the earthquake, so recovery and further development will be its focus. The town close to the fault has to be reduced in size or in some cases they had to relocate themselves. This is the master plan of the town close to the epicentre. This is the master plan prepared by the local government after the governmental recovery plan was completed. The purple line shows the fault line. At the time of the earthquake there was a construction project underway. But in the recovery plan we avoided reconstruction around this area and we followed the master plan to come up with more specific ideas and planning schedules. After this recovery plan but before the start of actual construction, we are trying to come up with further specific measures and plans.

Currently, central government is focusing on the recovery and rehabilitation and they are well prepared to have a clear-cut plan. Most of the area will recovered to the pre-disaster level in 2 to 3 years as we are working very hard. But in some regions, there are different challenges are facing different areas. In particular, the valley area is having the most difficult problem. The challenges they are facing are not directly caused by the earthquake but caused by the secondary damages indirectly from the earthquake.

This is the photo of Wenchuan, the town facing the river valley. Most of the land is already being used, wherever it is level. After the earthquake, the rocks from the both sides of the valley became very loose. There are newly built apartment houses buried in the landslide. This area was scarce in terms of land, so people tend to build the house even in dangerous areas. In the area close to the epicentre, the stones and rocks falling from the top of the mountain hit many houses and the landslide buried vehicles and the roads. The mountain slope were also damaged and eroded badly by this.

This is a junior high school close to the epicentre. The building was okay and the students fled from the building to the athletic ground but a rock that was flung from the mountain behind the school claimed the lives of 13 students. So the problem they are facing is not the short-term issue that they can overcome quickly. Therefore, in preparing the recovery plan we had to set a different schedule to the different regions. Especially in this valley region, planning that is too speedy is rather dangerous because the recovery after the earthquake should be a long-term issue. For these kinds of regions, time has to be taken to study the future.

According to historical documents, this area has been prone to the frequent earthquakes. So, we have to think that the earthquake will be coming frequently to the area and in the future as well. So the government should raise the awareness of risk in this region. For example, in Hokusen, the other town near the epicentre, there was a suggestion in the 1970s to relocate the entire town, though this was given up because of various difficulties. That is partly why this town was so badly damaged this time. The government-led rehabilitation plan essentially requires the incorporation of risks and to be well prepared for coming disasters on the part of the government. Preparedness is beyond just the financial support, and it should also include the dissemination of knowledge and information. Furthermore, disaster recovery essentially requires the participation of the citizens. Recovery has to be through the people's hand, the hand of those affected to make recovery effective.

Thank you very much for your interest in our disaster and recovery effort.

Keynote Speech

Disaster Assistance Across the Globe

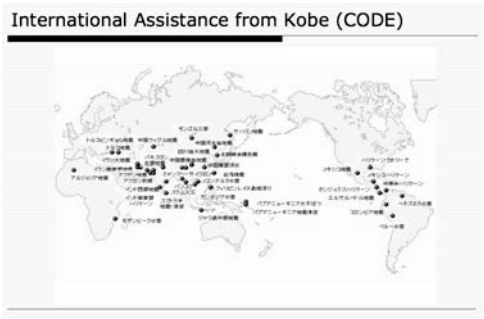
Yoshiteru Murosaki
Professor, School of Policy Studies, Kwansei Gakuin University
Vice Representative, Citizens towards Overseas Disaster Emergencies (CODE)

Hello everyone. As introduced my name is Murosaki. Today I would like to tell you three things. First of all, I would like to talk about what "assistance" is. Secondly, I will talk about what it means to reduce disasters, or its damages. Finally, I will talk about what it means to cross borders.

First of all, let me tell you about the important points in my presentation today. As you may already know, there have been large disasters occurring one after another throughout the world. In such a situation, we need to think about the reasons why disasters have been increasing. I think there are two major causes.

One cause, as demonstrated by the impact on the global environment by climate change, is the damage on global environment by humans. The second cause is the economic and technological disparity that has increased throughout the world. These tell us that humans receive damage from these two causes, but also that humans are creating these damages. Therefore it can also be said that humans can reduce damages as well.

Another thing that should be noted as arising with the increase of disasters is that international approaches for disaster assistance are becoming larger.



I forgot to introduce myself, but I belong to the NGO "Citizens toward Overseas Disasters (CODE)". I am the Vice Representative of CODE, the organization that the President of Yomiuri Shimbun Osaka mentioned earlier. There are many people here today from CODE such as the Chief Representative Mr. Serita and Secretary General, Mr. Murai. Since the Great Hanshin-Awaji Earthquake, CODE has provided assistance to the 42 countries throughout the world and I would like to tell you what we have learnt through our assistance activities.

So, getting back on subject, while international assistance has been expanding, something very important has started. That is, a warm, human-to-human cooperation and exchange is greatly expanding, transcending walls of politics, ethnicity, and religion. In this sense, I think that disaster assistance does not just help those in need, but also greatly contributes to world peace.

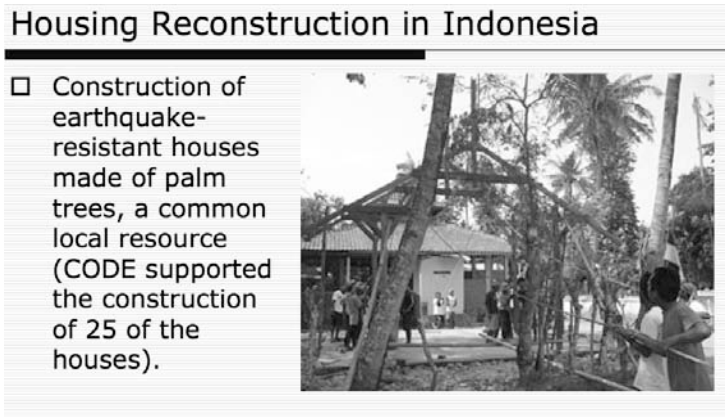
Now, I would like to talk about the aforementioned three points. First, I will explain what assistance is. I think the definition may vary according to different languages but this is the definition in Japanese. In Japan, assistance means supporting other people's actions backed by strong will or objective. What is important is to understand what others, people in need, are thinking or trying to act upon something, and this is the most fundamental concept.

So I think the following four things are very important for assistance. One is that there must be a relationship based on trust established between each other. This is very important. There was a report on the Great Sichuan Earthquake, but I feel strongly that a one-sided approach or viewpoint may destroy trust. I think maybe only people from Japan and China know this incident, but right before the Sichuan Earthquake, there was a so-called "dumpling incident [in which dumplings produced in China and imported to Japan were found to be contaminated with agricultural chemicals]". In regards of the responsibility for this incident, Japan and China unfortunately came to heads with each other. Dragging such a bad relationship will not lead to a correct type of assistance. If I have time, I would like to talk about this more towards the end, but to establish a trust-based relationship, it is very important to overcome political barriers, and so we must think about how we can create a good trust-based relationship.

This photograph shows CODE members in a village in Sichuan, working day to night to organize the bricks from the rubble. Working on cleaning up the rubble everyday, the people of the disaster struck area began to trust these volunteers bit by bit. Eventually, the disaster area residents started making warm food for these young volunteers. The affected residents then began to talk about their needs and issues to the volunteers offering assistance and it can be said that real assistance began from this point onwards.
Secondly, assistance is not something that is given out, but something that needs to be drawn out so as to assist the disaster victims can rise again through their own power. The next photo shows CODE members providing assistance to the affected people in Iran, but first we have to empower the people to improve their livelihood and have economic empowerment so that they can lead their own lives. I believe this picture will also be introduced by Ms. Saito later on, but , this project is also very important in regards to the issue of discrimination against women and their independence.

This is the assistance we provided in Afghanistan. We are supporting the regeneration and revitalization of grape vineyards in Afghanistan. In this case as well, we did not make the vineyards, but the Afghans produced the grapes themselves and took care of its management. I feel that, as in this case, we must think of assistance as not something to be embedded but to support drawing out from the local communities the courage, power of independence, and ability to rise with their own power.

The third important factor is to respect the local community's culture, history and tradition, religion. Our Japanese colleagues sometimes tend to force Japanese technology and concrete and steel structures upon the disaster affected communities. However, this kind of behaviour sometimes causes critical mistakes. Each community and region has appropriate indigenous culture and skills for safe city and home building. I think that it is important for us to take advantage of these traditional culture and skills and complement these by introducing modern viewpoints, thereby creating a more community based disaster culture.



The next example is from our assistance initiative following the earthquake in Indonesia. We used indigenous palm trees as the main material for building housing. The reason why we promoted this was because in the earthquake in central Java, houses made of concrete and bricks collapsed, but most houses using palm wood did not collapse.

In the Sichuan earthquake, even though many brick buildings collapsed, old wooden buildings did not collapse. This shows how skills from industrialized countries are not necessarily safe and that skills from developing countries are not necessarily unsafe. We must understand the good points of both skills and initiate assistance.

Another thing that I must say is that we must discern the needs of disaster victims. But this is a very difficult thing to do. For example, for the rebuilding of homes in Sichuan, we must see if giving money to victims are for their good, or whether instead of money, it is more important to give hope to the victims. To understand this, we must roots ourselves amongst the disaster victims and have an ear to listen to their voices. That was talk on how assistance should be implemented.

Another issue is the reduction of damages and what this means. Here, I will just address one point. Assistance does not only refer to assistance after disasters. To reduce damages, the initiatives before disasters occur and assistance towards these activities are very important. Also, it is important not only to give assistance immediately after the disaster, but also towards the recovery and revitalization after the disaster. Therefore, we must take more care in assisting preventive measures and recovery efforts. In regards to assistance for preventive measures, I previously referred to the effects of economic and social disparity that are causing disasters. In this case, we must implement assistance towards daily issues such as each country's problems with the economy, education, technology, and others. Assistance after disasters occur is a given, but I think that we must think how assistance towards preventing damages is more important.

This photo is from the construction of a gymnasium in Iran. We were involved in assisting the construction of gymnasiums and schools like this. The reason why we think building a gymnasium is very important is because this will be the place where the victims can gather and talk about their ideas and feelings. By creating a place for dialogue, it will give more strength to the victims. We must really assist these kinds of rehabilitation efforts.

Education is also important for reducing damage. This topic would also be covered by the subsequent speakers, but we assist the translation of disaster management textbooks in Japanese or its dissemination. I think sharing knowledge to

reduce damages throughout the world is very important. However, education is not done through words alone and can be conducted by being seen through the eye, being heard through the ears, tasted through the mouth, and felt by the body – one must learn with the whole body. Lastly, it is important to learn with the human heart. As such, simply creating textbooks is not educational assistance.

This is the case in Sri Lanka where our colleagues have worked on disaster management education with the children and using their whole body over the past 2 years. By applying disaster education through which the students learn through their body, I believe that the language barrier can be broken down.

Lastly what does it mean to go across borders? Why do we have to do carry out assistance across national boundaries? One reason is obvious. From the humanitarian point of view, we have to help those who are in trouble. That is one of the most important obligations for us as a human being.

Secondly, as mentioned in the example of the effects of climate change on the global environment, heavy rain, drought, or tsunami are disasters that can spread and are truly trans-border phenomenon. When disasters go across the border, assistance should also go across the border. We have to take global action for disaster and damage reduction, or disasters will not disappear. In that way such efforts like the development of tsunami early warning system also requires international cooperation to move ahead.

The third reason is the most difficult thing that I explain when I tell people about my views. For example, I think that the economic development in Japan is predicated upon both the cooperation and sacrifice of developing countries. I think that specifically because of our activities, there arises some people who suffer in the developing countries. As such, we must take responsibility to transfer our knowledge, wealth, and experiences. Going across the border includes such varieties of issues, but there is one big obstacle against crossing the border. That, I think, is the political obstacle. During the disaster in Myanmar, assistance from around the world could not be delivered due to political obstacles. We must do away with political obstacles to assist those who are trying to overcome death. How we can remove such political obstacles is a very large issue.

Lastly I would like to cite the guideline of Red Cross. This is very important for international assistance. Basically, there is something called national sovereignty and without the decision of the country, no assistance can be given, and this is the obstacle that still remains. We must think how we can remove such an obstacle. Taking this into account, in regards to the disaster in Myanmar as well, citizen level assistance can be made bypassing political obstacles. In this sense, I think the importance and need for NGO and citizen level international assistance was reaffirmed. Of course, there exists inter governmental assistance, but I feel that there should be more focus and effort to strengthen citizen level assistance. Assistance for the needs of victims that cannot be addressed at the national or political level can be given at the citizen level. For this, countries and their government should indirectly support such assistance.

The group, CODE is financially vulnerable. The other day we were awarded the Yomiuri International Award that came with a 5 million Yen of award prize. And this will finally sustain us to tell the truth. So without the support of not only Yomiuri Shimbun but also the government and many other people and citizens, the cross-border assistant conducted by different groups cannot be sustained and this is a very large issue.

Secondly, the lessons of disaster and experience of recovery should be shared around the world as a common asset. One of the organizers and hosts of today's symposium, International Recovery Platform, was established in Kobe. Experiences of disaster recovery are being collected by this entity from around the world. But there is still a very long way to the sufficient accumulation knowledge. We have to solidify and enhance such a platform as the International Recovery Platform (IRP) and we would like to ask for more assistance of the United Nation level.

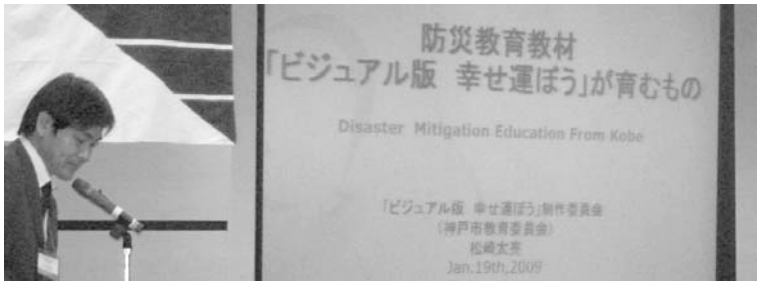
Finally, I have also mentioned this before, but we must work on expanding assistance for local societies and economic activities in daily and non-emergency periods. I feel that there is no set timeline to end our project in Afghanistan assisting the development of vineyards. This is an example of assisting the strengthening the daily economy of communities towards true disaster management assistance. Keeping in mind that these issues are facing us, I would like end my presentation hoping that myself and our friends at CODE and the Japanese government will continue our efforts.

Thank you very much for your attention.

Visual Disaster Education

‘Shiawase Hakobo’ – From Kobe to the World: Disaster Management Education

Taisuke Matsuzaki
Senior Manager, Research Division, Kobe City Board of Education



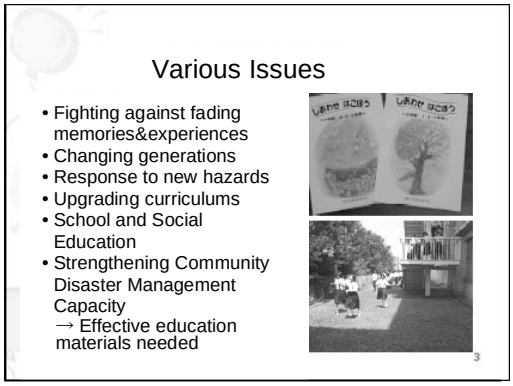
Hello everyone. My name is Matsuzaki, from the Kobe City Board of education and I would like to introduce to you to the visual disaster education material ‘Shiawase Hakobo (Let’s Carry on Happiness”’ and its objectives.

The Great Hanshin-Awaji Earthquake 14 years ago severely affected the field of education. Many teachers and students lost their lives and school buildings were damaged. Schools had also become evacuation centres and many people had to spend a long time seeking refuge. Since then, education in Kobe has begun to recover by coming a long way with the support and teaching of many people. I would like to introduce to you the many experiences and lessons we have gained along this way.

The principles of disaster management education in Kobe, which is common to that of Hyogo Prefecture, is to apply the experiences and lessons from the Great Hanshin Awaji Earthquake. Specifically, we have integrated disaster education in school education and cooperate with parents and community members. Previously, the viewpoint was disaster management, but now our curriculum is following greater focus on strategies to reduce disasters as much as possible. The curriculum specifically covers three fields.

The first field is knowledge. We need to learn the mechanism of earthquakes and the history of disasters. The second is skill. The lesson from the earthquake was that “we must save our own life” and we have to educate children for that. For example, how to use a fire extinguisher and other medical emergency response skills such as Cardiopulmonary Resuscitation (CPR) are being taught. The third and most important is to recognize the importance of human lives and the strength of people connecting and working together, and we try to objectively apply these concepts to education.

However, we are facing various issues. It is indeed a fight against eroding memory, and as the Governor mentioned in his speech, the children 14 or younger in our middle and elementary schools do not know the earthquake at all. This is because they were born after the earthquake. Also, there are many new teachers now and one-third of the faculty don’t know the earthquake firsthand. In addition, we have to respond to new kind of disasters and not only to earthquakes, but also to human induced disasters such as large-scale accidents and also mountain fires and tsunami. Furthermore, we must acknowledge how the teachers who don’t know the earthquake will soon have to teach students who also have no knowledge.



That’s why we need to spread disaster education in school and also in the communities to increase community level capacity for disaster management. Therefore, we had felt the need to make a new and more effective textbook that covers the subject more holistically, and this resulted in the “Visual Disaster Education material ‘Shiawase Hakobo’”.

This material consists of a DVD, CD-Rom and accompanying text. The textbook portion was designed based on a supplementary text that Kobe City had already been using and the material includes video, newspaper articles, photos, statistics, and a teaching guide. In order to implement the curriculum, there must be a teaching guideline.

The text is included in this accompanying booklet. This is the volunteer diary. The teachers or the instructors can educate children in talking about volunteer, reading the newspapers, seeing photographs and guideline. By reading this guideline, one can understand who will teach what and how and up to what point, even if the instructor is not a certified teacher. Therefore, the material is characteristic in that it has been designed so that it can be used to promote disaster education not only in schools but also communities.

This section, for example, is from the accompanying text and it includes an excerpt from a diary kept by a volunteer (who worked in Kobe during the earthquake). The teacher can introduce this text and promote volunteering to students

and can also refer to the newspaper articles and photos or, as mentioned before, use the teacher's guideline to conduct the class.

For children who do not know the earthquake, seeing a video on the affect on their school building helps them see what happened and visualize the actual event, allowing them to have a virtual experience, which is the most effective characteristic of this material.

Furthermore, this kind of education material was originally used in the elementary and middle schools in Kobe, but in cooperation with Yomiuri newspaper and television companies and Kobe University and Kobe City, we distributed it to all education boards and city offices in every prefecture in Japan for use in their respective classrooms. Fortunately, the material is being used much more than we first expected.

Of course this is being used as an education material and also as a review material before traveling to Kobe on a school trip for disaster education. So this material is also being used in other ways than we expected by each individual. As mentioned before by Professor Murosaki, this material has also gone beyond borders. When I went to Algeria last year with this material and conducted a special lecture, our counterpart said that they would also like their own education material for their own country. Therefore, I feel that we should really assist in making education material that is fit for the local community and feel that there might arise a system of international cooperation with disaster as a keyword. We must learn from each other and the good and bad practices and share experiences. In this sense, I experienced firsthand how there is no border in disaster education. Allow me to introduce to you the feedback from the children who learnt from the education material.

In Shizuoka Prefecutre, disaster education is very advanced, but by showing the videos in which school children learnt in temporary school buildings, one student was very moved and in a middle school in Kanagawa Prefecture, a student responded in an essay that he learnt that life and living is everything for a person. In a middle school in Algeria, a student said that she learnt the importance of people helping each other and the importance of protecting one's own life and it seems they were able to learn about life and how to think about it themselves. In this sense, I think disaster education that helps create a power to live has been realized. So we come to think what such empowered children will start to think about next.

What they think about is, when disasters occur or when people are in need, what is it that they can do? In this education material, it also mentions an example how children and youth helped carry water in place of or in assistance to adults. For example, youth can also help the elderly during disasters. They can also call for donations and send it to disaster areas or other countries. There is also a song called "Shiawase Hakobo" (about the earthquake and recovery) that is being proposed to be presented to the disaster areas in Sichuan with Chinese lyrics. The children began to think of these kinds of assistance. In this sense, I think that learning from each other is important, and 14 and now entering 15 years from the earthquake here in Kobe, we must gain knowledge amongst communities and share knowledge to prevent the erosion of memories and heighten community disaster management capacities.

Thank you very much.

Photos from Project Countries

Bangladesh – Emergency Training and Capacity and Vulnerability Analysis (CVA) Exercises

Men and women participate jointly in practical exercises aimed at reducing disaster risk in a workshop convened at Wards 59 and 61 in Old Dhaka.

Nepal – Training to Safely Secure and Place Furniture in Homes

At a workshop in Kathmandu, women are taking part in disaster management workshop. Here, they learn how to prepare emergency bags and useful contents to prepare. Other training included securing furniture in homes to reduce disaster risk.

Nepal – Emergency Training and Capacity and Vulnerability Analysis (CVA) Exercises

Women actively present their views on disaster management necessities, capacity, risk, and counter-measures following a CVA exercise.

Country Report
Bangladesh

A. K. M. Abdul Awal Mazumder
Additional Secretary, Ministry of Food and Disaster Management
(Delivered by Sareka Jahan, BDPC, on behalf of scheduled presenter)

Assalamu alaikum, and good afternoon to you all. I am Sareka Jahan from Bangladesh. First of all I would like to introduce my organization Bangladesh Disaster Preparedness Centre (BDPC) before you.

Bangladesh Disaster Preparedness Centre is the only NGO in Bangladesh that is working solely on disaster risk reduction since 1992. Our focus is on disaster risk reduction as opposed to disaster response. Our target group are vulnerable communities and we work closely with local government, small and medium NGOs, Ministry of Food and Disaster Management, Disaster Management Bureau, and other relevant departments and the academia.

Our mission is to reduce the risk of people vulnerable to disasters and enable them to establish their rights to access public resources and other entitlements by increasing their capacity and creating a congenial policy environment.

Our strategy is to promote good governance. Without good governance, we cannot enforce discipline, so we have to establish good governance. With regards to disasters, we need to change the mindset of the policymakers to implement disaster risk reduction. Capacity building of all stakeholders and enhancing vulnerable people's coping power to work in a group, networking with NGO for strengthening policy advocacy as well as to disseminate knowledge to the vulnerable communities are all necessary, as are research, studies, and publications. We have also pilot programs for action research.

We have developed many training modules on early warning, disaster risk reduction, IEC (Information, Educational, and Communication) materials and published reports on key issues. Our partners are the UK Department for International Development (DFID), UN Food and Agriculture Organization (FAO), European Commission, Bangladesh Government Disaster Management Bureau and the Ministry of Food and Disaster Management, United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), OXFAM, USAID, CARE, Asian Disaster Preparedness Centre, United Nations Centre for Regional Development, World Bank, and BRAC University. Almost 25 staff are working at our headquarters and 46 at the field level.

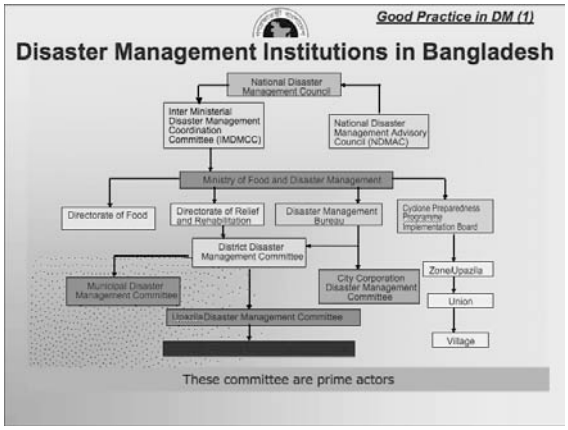
Now I am going to demonstrate the presentation for this International Disaster Management Symposium, "Disaster-Resilient Regional Development Strategies in the World from Hyogo to the World", which was supposed to be presented by A. K. M. Abdul Awal Mazumder, Additional Secretary, Ministry of Food and Disaster Management. Due to some important business with the Government of Bangladesh, unfortunately, he could not make it. He requested me to present it on behalf of him.

Bangladesh is a very small country with huge population. Its size is 14,700 square kilometres, but the population is nearly 140 million.

Bangladesh faces many disasters such as flood, cyclone, tidal surge, riverbank erosion, earthquake, drought, seasonal unemployment, salinity intrusion, arsenic contamination, industrial hazard, fire, and tsunami.

Now what is the vision of disaster management of the Government of Bangladesh? Our vision is to reduce disaster risk, and our mission is to establish a risk reduction culture instead of conventional response. Our objective is to strengthen capacity for better disaster management. For this purpose, we organize trainings and do necessary mobilization for community participation. There is a very elaborate system of disaster management in Bangladesh. We have permanent disaster management committees at all levels from national to grass-root level. These are very effective committees.

Ministry of Food and Disaster Management has many functions in disaster management. These include legislation, policy, plan and guidelines, disaster risk reduction, emergency response and relief, coordination, early warning dissemination, training, research, and knowledge management, regional and international cooperation, improving national disaster response mechanism, managing emergency risk, and mainstreaming disaster risk reduction.



Now, I am going to talk about the very important programme of the Government of Bangladesh for disaster management, which is called Cyclone Preparedness Program. It is a very popular and effective program of Bangladesh Government in disaster management. There are 43,000 volunteers in Cyclone Preparedness Program. They are volunteers in the truest sense, because they do not get any money for their service. They are teachers, housewives, and religious leaders. They give messages to the people before the onset of disasters, as an early warning for evacuation. They blow whistles to draw the attention of the people during disaster.

There is another important programme under the Ministry of Food and Disaster Management which is called "Comprehensive Disaster Management Program". It is an unique program of Bangladesh Government It works on policy reform, professional capacity development, data collection, and research.

Ministry of Food and Disaster Management has a lot of relief and rehabilitation programmes. We have many types of relief programs. Apart from disaster relief, we do vulnerable group feeding, vulnerable group development, food-for-work, test relief, natural disaster risk reduction program, program for reducing seasonal unemployment, house building loan, food security enhancement, construction of flood disaster shelters, 100 days employment generation program.

As you all know, Bangladesh is a highly disaster prone area, so we have to face lots of disasters every year, but our community has high resilience capacity. They have been living in these disaster prone areas for 100 years, but they have developed indigenous coping mechanisms and survival techniques, which is our huge asset. It is also our culture in our part of the world to help each other in times of need, so we do not wait for foreign assistance. Our people can help themselves. Of course, we are very much grateful to our development partners for their continuous support and cooperation..

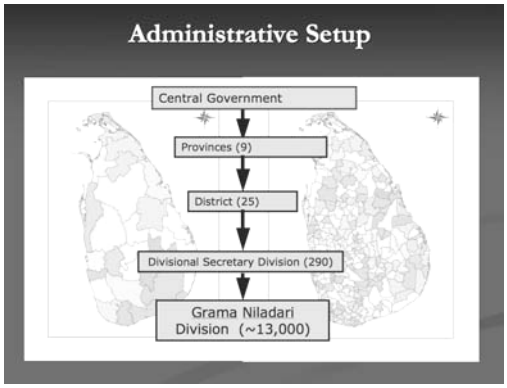
Thank you all.

Country Report
Sri Lanka

Ananda Mallawatantri
Assistant Resident Representative,
Team Leader of Environment Energy and Disaster Management, UNDP Sri Lanka

My team and I are very privileged and honoured to be here today, and also to participate in the 14th annual commemoration of the Great Hanshin-Awaji Earthquake 2 days ago. We are really impressed by the messages from the participants, including the honourable Governor Ido of Hyogo Prefecture, because he was mentioning the value of keeping the momentum of disaster risk reduction after the immediate event and also to engage the youth of the next generation and to share the knowledge locally and internationally. So we are really privileged to hear these valuable speeches.

Today, I am going to talk a little bit about Sri Lanka, where Sri Lanka is in terms of disaster risk reduction. As you know Sri Lanka is in the Indian Ocean at the tip of India. Today what I am going to do is to provide a little bit of information and also talk about the disaster risk and strategies used in Sri Lanka and highlight few examples and lessons learned. I have included few slides and some statistics, but due to time limitations, I am not going to go into details, but for comprehensiveness, I will quote some of these numbers.



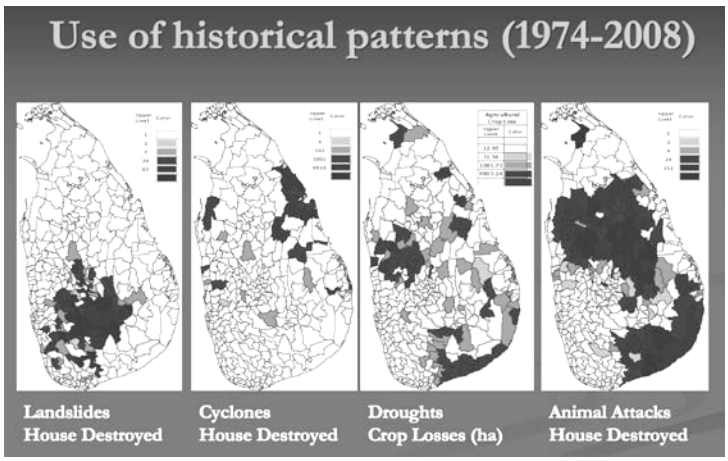
Sri Lanka is divided administratively into 9 provinces, 25 districts, 290 divisional secretary divisions, and the smallest entity is called Grama Niladari divisions where most of the community-based actions take place. Geographically, Sri Lanka is in Indian Ocean surrounded by the Ocean with central hills, steep hill slopes where 103 rivers mostly generate from those hill slopes and flow towards the ocean. There are lakes and storage pools. Some of these are manmade for agricultural purposes and storing water.

Population is about 20 million and Sri Lanka ranked 99th in Human Development Index (HDI). It has a lot of high development indicators. As in the Great Hanshin-Awaji Earthquake, the biggest event Sri Lanka faced was the December 26, 2004 tsunami. It reached Sri Lanka in Eastern Coast at 9:27 in the morning on this holiday after Christmas Day. Most of the offices were closed at the time. And Sri Lanka at that time did not have a very strong early warning system, so the devastation was very high.

In this chart, you can see some of the waves reached 15-meter in height. As a result, 35,000 people killed and half a million got displaced. It affected about two-third of the coastal line, and we lost about nearly 100,000 houses, a lot of schools and 75% of the fishing industry got affected.

Sri Lanka is also prone to many other disasters, floods, landslides, droughts, cyclones, epidemics, sea waves including tsunamis, and many manmade disasters. As in the case of Kobe, Sri Lanka also used this tsunami as a way to get the momentum to implement multi-hazard disasters. One of the initiatives was to develop this roadmap called Roadmap towards Safer Sri Lanka that is in line of the Hyogo Framework of Action (HFA), getting all the stakeholders to come together and identifying what the country needs. It has about 100 activities lined up for the next 10 years for Sri Lanka to implement. It has followed several concepts, national and regional coordination, development of hazard and vulnerable information for usage by many sectors, technology and visual risk analysis method transfer for disaster risk reduction, pilot demonstration project, education and research, community-based activities including gender. So there are a lots of activities selected. Some of them are landslide mitigation, flood protection, coastal zone management, drought, land safety, land-use planning, legislation, disaster impact assessment including environment assessment, hazard profile development, building, early warning system establishment, training and educational material development, and adaptation to climate change.

In the process, a number of databases were being built. One of them is on the last 30 years of historical events. As a result Sri Lanka is now able to identify where past disasters have occurred, the trend and the intensity of landslides, cyclone, drought, and a unique disaster for Sri Lanka is animal attack, primarily from elephants. Due to poor land-use management, now elephants share the same land with humans.



Some of the strategies include involvement of communities and students are being used as a conduit to reach communities, in fact the top left hand corner, the ludo board is knowledge transferred from Hyogo that was a game that was adapted to Sri Lanka for different disasters, so students practice emergency management system. In society, there are a lot of efforts to increase early warning system awareness, search and rescue skills, first aid, etc. Also, there is increasing momentum to treat disaster management more slowly, but due to rapid development, locally and internationally, and the impact due to industrial and agriculture enhancement is giving rise to more disasters.

Now we are seeing different diseases without any particular reason. For example, a lot of kidney failures. We do not know if the cause is agricultural or industrial, but something is changing for sure. So there are efforts to work on unknown epidemics like this. Also at the same time, we try to make a lot of materials to teach people, to help them understand, practice better, and actively do things to minimize disasters and also to transfer knowledge available from around the world.

On top of that, we have climate change. Sri Lanka is experiencing increasing minimum temperatures in the night and also high density rain, more erosion, more landslides, so now there are efforts to address some of these climate change impact, primarily through adaptation techniques. There are efforts to use some of the traditional knowledge; one is this, with the increased climate change, the drought, flood, and the increase in salinity levels in coastal areas, there are efforts to try some of the traditional rice varieties with good practice, and also trying to use international knowledge and contribution from different agencies.

I cite UNCRD here because of the relevance. UNCRD has worked in Sri Lanka; you saw some of the slides earlier through our colleagues. Trying to improve the understanding of the communities about their own local vulnerabilities and also to understand the community perspectives, how they see things, and also to develop risk reduction and coping strategies by themselves, improving communication strategies, communication mechanisms, and using local mechanisms of communication, and mainstreaming this model developed locally through other development programs is key to sustainable disaster risk reduction.

My other community activity is regarding the animal attacks. There are efforts, common ways, which is to put up electrical fencing, but there are efforts to use communities to grow different varieties of plant species to regulate the movement of these animal species.

Through all these processes, we are getting a lot of knowledge that we can use in many ways. For example, we are finding it increasingly important to understand the disasters and the manmade contribution, the economic impact, and also how these disasters affect the quality of life of people, and also how it affects the poverty reduction program in general. The idea is if a rural person is affected by a disaster, it is very difficult to recover. So recognition of those kinds of principles are emerging. There are tools and education materials being developed, and also recognition of the regional and different approaches for different areas in disaster management, and finally the value of partnerships both domestic and regional.

Thank you very much.

Country Report
Nepal

Bhagawati Kumar Kafle, Secretary, The Government of Nepal
Hemant Kharel, Special Class Gazetted Officer, Ministry of Local Development

Ladies and gentlemen, I am B. K. Kafle with the government service of Nepal. My presentation is on community-based disaster preparation in Nepal. I have divided this topic into four parts, first an introduction or background, another is community-based disaster preparations in the context of Nepalese society, third is in gender issues, and finally, need of regional cooperation.

Nepal is situated between India and China. It is a small landlocked country. The reason why Nepal is facing disaster risks is because it is highly prone in various types of natural disasters due to the rugged and fragile geophysical structure, high hills, steep slopes, complex geology, active technique process, remote and rural geophysical condition, as well as unplanned development activities, insufficient investment in the infrastructure development, and unplanned settlement, increasing population, rural literacy rate, lack of coordination, resource constraint, actions of modern technology, lack of technical manpower, undeveloped early warning system, lack of disaster awareness. There are different types of disasters that occur in Nepal including flood, landslide, fire, earthquake, windstorm, hailstorm, lightning, drought, epidemic, avalanche.

As for the organizational structure of the disaster management in Nepal, in the central government level, we have the Central Disaster Relief Committee and regionally, we have the Regional Relief Committee. In the district level, we have the District Disaster Relief Committee and at the local level, we have the Local Disaster Relief Committee.

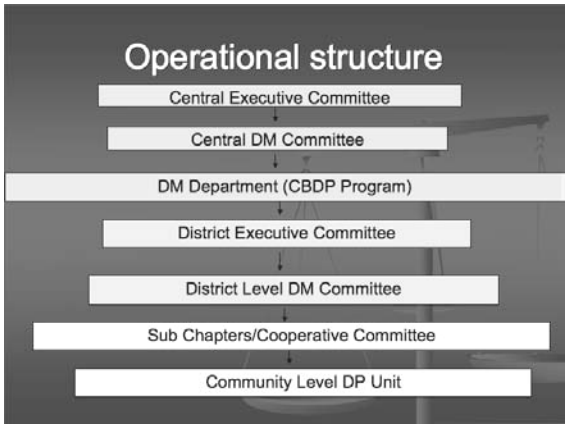
In 1997, the Nepal Red Cross Society introduced the Community Based Disaster Preparedness (CBDP) Program in Nepal. In the beginning, only the training programmes were implemented. Later, observation tours, community management training, coordination, and meetings were organized at the district level. In addition, grain storing, creation of a revolving fund, first-aid equipment support to communities were included in the CBDP Program.

In 2001, disaster preparation at the community level started the practice of revolving fund management through the CBDP and community level Disaster Preparedness Unit information was also developed. In 2002, the community-based flood mitigation program was initiated. In 2003, a pictorial manual on how to be safe from fire, flood, landslide, and earthquake were developed. A mitigation component was also included in CBDP Program 2004. The school community-based disaster preparation and earthquake safety programs were introduced. Comics and posters on how to be safe from flood, landslide, and earthquake were produced. Income generating activities for poorer communities were incorporated in CBDP Program.

The general objective is to reduce the losses of life and properties caused by disaster, also by combining such activities with Community Based First Aid (CBFA) programmes. Some strategic objectives are to raise the awareness level of communities, to enhance disaster management capacity, to encourage the community for disaster mitigation, to reduce the health hazards, and to develop and execute the community disaster preparedness plan.

In regards to the operational structure, at the bottom we have the community level DP Unit and then we have the Subchapter Cooperatives Committee, then the District Executive Committee. Finally we have the Central Executive Committee. As for Community Level Mitigation work, we have started a mitigation program and the flood retaining wall and Gabion-Boxes wall along the riverbank, sandbag embankment, and gully and canal's protection are some examples of its achievements. Floods are recurrent disasters in Nepal. Flood, mostly occurring in the terai area of Nepal is a common phenomenon. Landslides are also common phenomenon in Nepal, also affected by poor construction in the rural areas. Fire hazards are also common. Non-structural mitigation works have also been started including plantation and agro forestry, bioengineering, grass conservation, change in crop pattern, land-use rule formation, and establishing a greenbelt along the riverbank, cattle control and vegetable land are some examples.

This is a picture of the 1934 earthquake. Scenes from the 1934 earthquake show a damaged Clock Tower and damaged cultural heritage. This is the City of Bhaktapur. It is close to Kathmandu. This is a real picture of the Kathmandu City,



and one of the streets of Kathmandu, showing how narrow they are and vulnerable the situation is still over here as well as how tall and vulnerable the houses are here. So even in a small earthquake, these may collapse.

Nepal's success story in the community forest development programme has greatly contributed towards the preservation of environment and disaster risk reduction. Recently, the government has decided to provide up to $77,000 through the committee for any sustainable development activities, including disaster mitigation works.

In regard of gender issues, in spite of Nepal's participation in the international community, women's development and status has not improved substantially. By strong commitments of the government of Nepal in favour of gender equality, some positive changes have been observed in gender development but not equally in the rural areas. Nepalese women are currently getting 33% representation in the parliament. Similarly, they are getting more representation in education, scholarship, and civil service.

Need of regional cooperation is critical as disaster are sudden events, which has unfortunate consequences and can be both nature and manmade. All countries within a region can be affected by a single disaster and share common problems. Disaster information and data should be shared. A disaster relief fund should be established. Technological know-how and indigenous knowledge should be shared among the member countries. The establishment of a regional information centre is imperative. Our region includes Nepal, Pakistan, India, and Bhutan, Bangladesh.

Disaster is a cross-cutting issue spanning development and governance. Policy is not directed towards poverty and vulnerability reduction, often times accountability shifted, regional cooperation sidelined, vulnerable and capacity ignored, risks and livelihood sidelined, right-based approach not taken, women and children are not getting due attention.

These steps must be taken in the future: DMIS should be rigorously amended; a separate agency should be constituted for disaster management; preventive measures should be adopted; nongovernmental and people's participation should be enhanced; training and R&D, research and development and database are needed; international cooperation should be enhanced; women and children should be taken care by paying due attention.

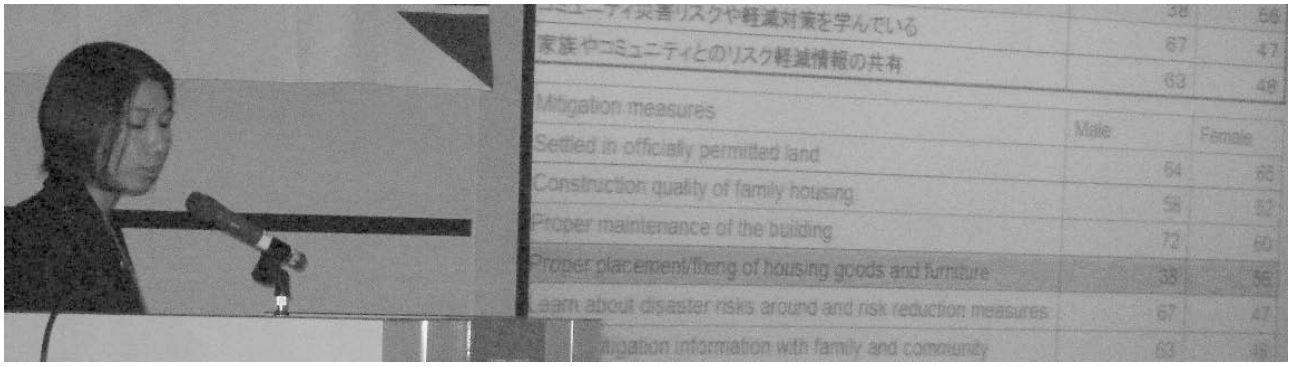
As a conclusion, disaster management is diverse and complex. No government of the world can completely answer to the needs of disaster victims. Local communities should be strengthened for effective response, particularly through CBDP. International cooperation is necessary to coordinate disaster preparations and rehabilitations.

Thank you.

Country Report

Mainstreaming Gender Perspective into Regional Development through UNCRD Activities

Yoko Saito
Researcher, UNCRD



Thank you all for participating in the Symposium today despite your busy schedule. I would like to present to you the topic of "Mainstreaming Gender Perspectives into Regional Development through UNCRD Activities" and introduce to you some of our activities.

There may be some of you who do not know the United Nations Centre for Regional Development (UNCRD) very well, so allow me to introduce our organization to you first. The UNCRD headquarters is situated in Nagoya. On top of this, our central headquarters is the United Nations Department for Economic and Social Affairs (DESA) in New York. Aside from this, we have regional offices in Latin America and Africa. Here in Hyogo, we have the Disaster Management Planning Hyogo Office. Currently our office is engaged in implementing three main projects entitled "Gendered Community Based Disaster Management in the Context of Regional Development", "Housing Earthquake Safety Initiative", and the "School Earthquake Safety Initiative". The concept of Community Based Disaster Management (CBDM) included in the title of the first project has been a keyword of our activities since the Hyogo Office was established in 1999. This is because one of the main aim is to disseminate the lessons and experiences from the Great Hanshin Awaji Earthquake to the world.

So, we are currently focused on gender mainstreaming and regional development, but how is this connected? Let us first address the question what gender is and there are many definitions, but basically, it refers to "both sexes in the cultural context of society". This "cultural context of society" refers to the different societies according to different countries, regions, and cultures. These differences define social contexts and differences between both sexes, which gives rise to the concept of gender.

In regards to the gender related activities undertaken by UNCRD, referring to the Tsunami disaster that was presented as an example from the Sri Lanka presentation, it is reported that among the total death toll, 40,000 to 45,000 more women died than men. As evident, gender issues are related to such issues of survival. There are also issues such as the recovery of women's livelihoods in the disaster recovery process and issues of inequality and disadvantages, so gender is very much related to the issue of disasters. Also, gender is not an issue that arises with disasters. There were already pre-existing gender issues that were exacerbated by disaster and brought to light. So, in regards to gender and disaster, this is an issue that must be investigated in disaster management and UNCRD has been implementing the project in three countries.

Next, in regards to what regional development is, the United Nations Economic and Social Council (ECOSOC) in 1971 called for the need to reform society to promote equal distribution of development gains, especially to disadvantaged and under-represented people. When thinking who these people are, the issue of gender becomes related. By thinking about gender issues, I believe that we can promoted social change towards equal distribution of development gains.

So, to give you specific examples of our activities, I would like to introduce to you one result of our activities in this Symposium, but in Nepal, Bangladesh, and Sri Lanka, we conducted a survey amongst 200 people in each country, 100 men and 100 women. In the survey, there were questions such as what their most reliable source of disaster information. Men responded that they trusted the media most while women chose their neighbors and community people instead. So, we discovered that women trusted their community network more than the media. In another question, we asked what sort of disaster mitigation measures they were applying in their homes. Among the replies, we decided to focus on the need to disseminate and train people regarding the securing and safe placement of furniture in households.

Mitigation measures	Male	Female
Settled in officially permitted land	64	65
Construction quality of family housing	58	52
Proper maintenance of the building	72	60
Proper placement/fixing of housing goods and furniture	38	56
Learn about disaster risks around and risk reduction measures	67	47
Share mitigation information with family and community	63	48

In regards to this point, more women than men replied that they had secured furniture. So, instead of suddenly training women about retrofitting and home maintenance that are quite technical, we thought it might be an important and easier first step to train women to secure their homes and reduce disaster risk through household measures such as securing furniture. Therefore in Nepal, we trained 20 women from a target community to secure their furniture and called specialists to come to homes and demonstrate how furniture can be secured to prevent furniture from falling or preventing refrigerators from falling over with rubber belts and talked to the women about other considerations.

Two weeks after the training, we conducted a follow-up survey and almost all the respondents indicated that they had secured their furniture. 16 of these women replied that they showed their friends and relatives how to apply the same measures and 14 replied that their friends and relatives had also applied these measures to their own homes. So, even in a small community training exercise for 20 women, we can have a big impact that spreads through the women of the community. Therefore, the reliance of women on their social network has a big impact on the community. Some women also replied that their husbands had received training before but that he had never shared it with the family and therefore she learnt for the first time.

This was not only the case in Nepal. Men have more opportunities for training than the women, but it is often mentioned that they do not share the content of the training with their family so women learn for the first time by going through training themselves. By experiencing such training opportunities, women realize the importance of disseminating such practices and they start to think that they want to do more and what they might be able to do. For example, perhaps they can go to schools and teach children or spread it amongst other women and community members. Some women said that they wanted more training to gain confidence so that they could train others. We hope that we can continue such initiatives with regional governments and development departments to create more opportunities to give rise to such women.

Finally, in the beginning of Professor Murosaki's keynote speech, he noted that "Assistance is not something that is given but that which needs to be drawn out." I think this is exactly what connects to the activities that we are implementing. In the beginning, with only the sharing of information and dissemination of project details, women probably thought that disaster management has nothing to do with them. However, through this project, women would start to think that they might be able to do something as well. Then they want to do something and they will start to offer ideas. This is called empowerment. We are not giving but drawing out women's capacities. Therefore, thinking from the gender point of view is to think about regional development and for appropriate regional development, we must create a disaster resilient region and community.

Thank you very much.

Panel Discussion

Integration of Disaster Mitigation into Regional Development

Moderator:
Takaaki Kato, Assistant Professor, Urban Engineering Department, University of Tokyo

Panelists:
Dilruba Haider, Additional Director, Bangladesh Disaster Preparedness Centre (BDPC)
Wan Xiaopeng, Director, Chengdu Planning Administrative Bureau, China
Masakiyo Murai, Director/Secretary General, Citizens towards Overseas Disaster Emergency (CODE)

Takaaki Kato
We were given the theme 'Integration of Disaster Mitigation into Regional Development', which is a very broad topic so it would be quite a task to handle this big theme in 60 minutes or so. But in this limited time, we would like to conduct a quality discussion among our three panellists. In the next hour, we would like to focus on two themes.

First, as has been mentioned, in the 21st Century, there have already been tens of thousands of people affected by disasters such as the Bam earthquake and the Great Sichuan Earthquake. As Professor Murosaki mentioned in his keynote lecture, he raised human activities as a key factor for inducing disasters, including environmental degradation and economic and social disparities. To add on to this point, the processes of modernisation of our lifestyle, of urbanisation, and of population increase are all related to regional development and I believe that all of these are contributing to the magnitude of disasters.

As was also already mentioned, if we take into account the impending climate change and the increase of mega-cities in Asia, these scenarios seem to lead to an era of "Mega Risks". In meeting with the challenges of such an era, "sustainable development" has become a major theme, and how we can incorporate disaster management in any development activity or, as in the previous talk, how we can implement disaster management from a gender perspective towards community development, will be our first point of discussion.

The other point is that now we have marked the 14th year since the Great Hanshin Awaji Earthquake. Many lessons have been collected from that time and in these 14 years. Our second point of discussion will be how we can disseminate such lessons to the world. We will discuss these two topics towards the identification of keywords that relate to today's theme, "Integration of Disaster Mitigation into Regional Development.

Let us first hear from panellists, beginning with their introduction. Let us start with Ms. Haider.

Dilruba Haider
I am Dilruba Haider. I am currently working as the Additional Director of Bangladesh Disaster Preparedness Centre (BDPC). My colleague Sareka Jahan introduced what BDPC does a little while ago, so I would not go into that. Just to give you my personal background, I have been involved in disaster management work for the last 16 years at different organizations. I worked with the UK Department for International Development (DFID), UNDP, and now I am working at BDPC. I also teach disaster management at BRAC University in Dhaka. I am just happy to be here. Thank you.

Wan Xiaopeng
I am from Chengdu from the Sichuan Province. In 1986, I came to Japan for the first time as an exchange student and worked for a Japanese company. In 2002, I went back to China, and since then, I have been involved in urban planning in Chengdu City as a training manager and on city planning in cities and rural areas. Thank you very much.

Masakiyo Murai
My name is Murai from Citizens towards Overseas Disaster Emergency, CODE. President Nakamura of Yomiuri Shimbun has already introduced us in detail in the opening remarks, so I will not talk about CODE in detail, but since the Great Hanshin Awaji Earthquake in 1995, we have been specialising in activities related to disaster assistance at home and abroad.

Kato
Lastly, I will introduce myself. I am currently affiliated with the Urban Engineering Department and specialize in urban planning. In particular, I specialize in research on urban disaster management. My research is focused on domestic issues such as the crowded wooden dwelling areas in inner city Tokyo and planning for city level disaster management through community based disaster management and city planning.

Right now, I am joining an international gathering, so in regards to international activities, in the recent Wenchuan Earthquake, Chengdu City government sent out an international invitation for recovery city planning proposals. At this time, a combined team of Keio and Tokyo University made a proposal with a conceptual plan for recovery planning. This is my only involvement in international projects.

Today, as I moderate this international symposium, I would also like to foster my international viewpoints and develop our discussion. I am usually based in Tokyo, working on disaster management city planning in Tokyo, and when considering community issues, disaster management is a very important theme, but there are also many other issues at hand. Even when we think about disasters internationally, there is more emphasis on issues such as increasing income and employment. Examining my own life, I see that instead of preparing for a disaster that might occur once in a hundred years, there is more aspiration to try to live the moment as happily as possible, and therefore I am convinced that a lot of creativity is necessary to integrate disaster management within regional development.

Based on such viewpoints, I would like to ask the three participants how they are integrating disaster management in their daily activities, as well as existing issues and the creative initiatives they might be implementing. First, from Ms. Haider, I see from the previous presentation that Bangladesh is a country that is co-existing with disasters, a country where disasters occur frequently. Please tell us in what context disaster management is integrated in your current activities.

Haider
Thank you very much. As I mentioned, and as you have already heard, at the Bangladesh Disaster Preparedness Centre, we work only on disaster risk reduction. As Sareka also said in the presentation, we work on disaster risk reduction as opposed to disaster response. So we are really focusing on the capacity building of communities and reducing their vulnerability. So everything we do is about disaster risk reduction, and our focus is primarily on the community.

Now in order to increase their capacity and reduce their vulnerability, we have to implement a two-pronged approach. On one hand, we must focus on increasing people's capacity and on the other hand, we must try to create a congenial policy environment for the community to increase their capacity and reduce their vulnerability. So we work with the community and also at the policy level.

So we work with the Ministries, the members of Parliament and other institutions, who are responsible for making policies and strategies and development strategies. At the same time, we also work with the community. In order to work with the community, we work a lot of time through community-based NGOs who are working with the people at the grassroots level, so we do capacity building of the NGOs and the community people and sometimes people from the local government as well. One set of activity is training to build capacity in terms of the people's understanding about disaster risk reduction as opposed to disaster response. I think until, I would say 1992 to 1993, in the context of Bangladesh, disaster management was considered to be a matter of preparedness for efficiently responding to a disaster. But we have come a long way from there. Now we are talking about increasing people's capacity, people meaning the affected people of the community as well as the capacity of the institutions who are involved in disaster management. In other words, capacity building to prepare themselves to reduce the vulnerability.

The other front I would say is that we constantly strive to listen to the communities. We believe that our guiding principle is that we believe that the people know the best. That is, first understanding that people know best. Because the people are living with floods and cyclones everyday, they know how best to deal with these disasters. It is us who need to learn from them and crystallize it and put it into a system to help them. It has to be them to whom we have to listen to and then design our program and our activities accordingly. So we at BDPC do a lot of Community Risk Assessment or CRA and we also do a lot of Participatory Rural Appraisal (PRA) and things like that. So we go to the people first, listen to them and then help them design their own program. We consider ourselves as facilitators. We never consider ourselves as disaster management experts; we do not call ourselves that.

For disaster risk reduction, we always emphasize on indigenous knowledge, and we do not discourage but we do not want to – in the Bangladeshi context, emphasize too much on hardware measures. This is mainly because of the resource constraint, if we can give 'pakka,' you know, concrete buildings to all the inhabitants of the coastal belt, they will be saved from cyclone wind. But we cannot do that. So what we tell them is just to tie the four corners of their thatched roof, thatched roof or corrugated iron sheet roof, firmly with the ground so that it is not blown away with a 100 kilometre wind speed. So we tend to encourage the communities to adapt, which a lot of them are already doing. So it is a question of helping them do what they are already doing by encouraging a lot of indigenous practices for disaster risk reduction, disaster risk mitigation. Of course, there are disasters like cyclone Sidr, which struck on 15th November, 2007. After that there were lot of discussions and talks about building cyclone shelters. There were studies in early '90s which showed that in the coastal belt of Bangladesh, you need 4000 cyclone shelters, the number must have gone up because the population has grown since. So there were lots of discussions about having embankments, having cyclone shelters. Those are necessary, but BDPCs focus is really helping the community adapt to the changing situation.

Climate change issues have come in the discussion. So we are working with the community, listening to what they think are their needs and helping them adapt to their own environment in a more affordable way. Thank you.

Kato
Thank you very much. I think what you said was very comprehensive when comparing it to my own experiences. So I have one question. In the beginning, you talked about working with the communities to think of and implementing strategies, but it seems that unless there are many people who can play your role, such a system will not be disseminated throughout Bangladesh. This is actually an issue that I am facing in Tokyo so if you have any effective measures regarding this point, could you tell us about it?

Haider
Absolutely. I think I tried to mention but maybe I was too brief on that, is that we work with the NGOs. We have, in the coastal belt alone, some 200 community-based NGOs that we network with. We develop their capacity and in turn they are going back to their hundreds and thousands of villagers that they are working with. These NGOs have development programs and disaster mitigation programs, and we transfer our knowledge and ideas to these NGOs through training and capacity building, who in turn then share it with their constituencies.

Kato
I think we should learn about that in Japan as well, thank you. And as you have mentioned in your presentation, you said indigenous technique are being applied, and I think that can be one of the key words in our panel discussion.

Another question that I have for you Ms. Haider, is that in Bangladesh, you have lots of cyclones that occur frequently, and so it would be useful if you could elaborate the measures that you have taken in the past, the assessment of the measures that you have taken in the past can be done in order to find out how effective those measures were in the next cyclone. In case of earthquakes, they do not occur so frequently, so we cannot assess the measures previously taken, but in case of cyclones I think you are able to assess the measures that you have taken because of their frequency, and such assessment leads to a better measure in the future and serve as examples for other disasters.

Haider
If I can share with you just very quickly the statistics, in 1991, there was a major cyclone in the coastal belt of the country and the wind velocity was about 230 kilometers per hour. During that time, it was in May 1991, more than 131,000 people died. With just about the same velocity and same severity, cyclone Sidr struck on November 2007, but the death toll did not exceed 3,400. This speaks about the level of preparedness that has gone into our system.

We have a Cyclone Preparedness Program or CPP. We have some 43,000 volunteers throughout the coastal belt of the country, who are always ready to disseminate the warning messages to the communities, help in rescue and relief operations. And we have a detailed sort of disaster preparedness structure throughout the government starting from the

national level down to the village level. So whenever there is a cyclone warning, the whole mechanism – the whole machine starts rolling and the preparedness is pretty well in terms of saving lives – we have come quite a long way in terms of property, but we still have a long way to go.

Kato
Thank you very much. I think we have more to discuss, but it should not be only two of us, so we should go on to the next person. Next, I would like to ask Mr. Wan Xiaopeng, Director of the Chengdu Planning Administration, and in the restoration plan, I think, urban safety is one of the major factors of your urban planning. Could you elaborate on that?

Xiaopeng
The city of Chengdu is the symbol of Sichuan and is a very traditional region that is famous as the location of the Shu dynasty in the Three Kingdoms era. I think this city is known through our most recent earthquake throughout the world.

In regards to the theme of this discussion, I would like to say that this disaster taught us how important disaster management and reduction is important from the viewpoint of regional development. I have previously stayed in Japan for a while and I recognize how the awareness level for disaster management is quite high in Japan from daily times but this time, I found that awareness was not quite high in Chengdu.

During the 80s, there was a rumour that an earthquake might occur in Chengdu and people panicked. However, even with such an experience, there was no action taken against this risk. I took advantage of my experience in Japan and from last year, I have been advocating to the government to create a comprehensive disaster management and reduction plan in Chengdu and while I was preparing this plan, the earthquake occurred. Chengdu is a large city with a population of over 10 million and covers an area almost about the same as Tokyo, maybe 12,300 square kilometres. The metropolitan area has a population of 4 million and it is quite a large city.

As you may know from the 1980s, China has grown greatly economically but there are two worlds: the urban world and the village world. And urban area has been much more developed. But from the perspective of disaster prevention and mitigation, it comes to a different result. In Japan, for example, small parks or small public space is included in the urban planning process. But in China, because of the population pressure, the land use is very much dense in the urban area. And there are a lot of high rise buildings in the urban area of China, and the population per area is very dense. However, there is not sufficient consideration with regards to safety. So open land is converted to construction sites, and there is less you know public space unlike in Japan where such spaces are incorporated in city planning. Because of population pressure, most land is densely occupied with high-rise buildings and there is, unfortunately, still a lack of provisions for safety.

Land with vegetation is also converted for use in construction and in this earthquake, we found out the importance of public land management and including the need for evacuation space, I passed on the previously mentioned comprehensive disaster management plan to the government within two months of the disaster. This earthquake taught us lessons and raised our awareness and this is why I believe the government accepted the plan. On the other hand, in regards of rural areas in this earthquake, widespread damage was reported, but damages occurred in concentrated areas. After some research, we found out that construction in rural areas were not regulated and everybody built their own homes or constructed without a plan, causing problems at the most basic level which contributed to the damages. In regards to these issues, as was just mentioned about city planning in urban centres, land usage planning should be implemented in rural areas along with the construction of temporary housing and recovery housing. I also formulated a plan so as to send a foreman to the area to make sure buildings are constructed according to plans and also in compliance with the building codes.

A point I want to make here is that in Chengdu City alone, we have to rebuild a great number of rural homes. After this earthquake, there was a review of the building code by the government. However, there is no national regulation yet in regards to rural disaster damages and there is only a national standard for urban areas. This is also because if we try to apply such standards in rural areas, construction costs will rise and there are no qualified construction workers to apply such regulations. It would also prevent meeting the deadlines for the recovery plan, so in order to accommodate to the current situation, we made a regional standard or Chengdu standard. This was based on the inspection of houses that did not collapse and was intended to be as low-cost as possible while being able to withstand earthquakes and we created something like a textbook to disseminate these techniques and standards.

Another point is regarding the infrastructure and in rural Chengdu, the infrastructure that experienced the most damages were very close to the mountains and when one road was destroyed, the entire lifeline suffered, therefore affecting rescue and relief operations. Therefore, from the infrastructure perspective, for villages and towns, we have sought to make sure there were at least two connecting roads.

Another is, initially we were told by many countries that buildings should be situated at least 200 to 300 meters from the fault line, but in reality, we discovered that we could not see where exactly the fault line was, let alone where 200 or

300 meters from it was. I asked experts in Japan how detailed their investigation of fault line locations were and received an answer that not much was actually conducted. In our case as well, we realized from other disasters such as floods and landslides and from the voices of the local people that what was more dangerous was not the earthquake but the secondary disasters caused by earthquakes and as these risks remain in many years to come, we are now implementing regional development and construction by selecting areas by avoiding secondary disaster risk and improving land conditions.

Kato
Because of your position, I think you talked about some top-down approaches today, but citing the example of Tokyo, in the 70s, we created evacuation points, or open spaces. These were created from a disaster management perspective towards regional development, but this was the time when also community and local level consciousness was increasing in Japan and it seems that such principles were applied in China after this earthquake. I have a question here, but will such plans like that which is being applied in Chengdu, being applied in other regions were disasters have not occurred?

Xiaopeng
Chengdu, as I mentioned, is a big and a major city surrounded by the peripheral cities. Chengdu consists of 14 cities and towns. And beyond metropolitan Chengdu, the population is low at about 100,000. As we are in charge of the city planning for all 14 cities, after the earthquake we demanded a review of land usage from a disaster management point of view. Not all have been reviewed yet so we will continue. We hope to implement city planning that is resilient not only to earthquakes but also to fires.

Kato
Thank you very much. Next, Mr. Murai, you have assisted a large number of countries, could you tell us from your experience the relationship between improving the region and disaster management?

Murai
I will talk about CODE's principles, but Professor Murosaki has already talked about CODE and there is not much time, so I would like to refer to our projects and think about regional disaster management and development. Professor Murosaki also mentioned this, but in 2006 druing the Jawa Inland Earthquake, two-thirds of the village in Jogjakarta was destroyed and we built 25 houses using a local resource, the palm tree. In Indonesia, there is a system of helping each other and community called "Gotonroyon" and the houses were built cooperatively under the spirit of Gotonroyon. After this, there was an area called Gununkidur which is a little bit of ways from Yogyakarta, but here, there was not much damage and only some structures were affected. This is a very poor area and there is a rainy and dry season, but water from the rainy season does not last throughout the dry season and they are facing a water shortage problem. In order to solve the water problem, we, along with our counterpart for building earthquake resistant houses, Mr. Eko Prowat, a University instructor, went into the community with water shortage and started to work on securing water sources with the people of the community. We call this the "Water Calling Project" or "Water Project" but in inland Java at Gurunkidur, what we at CODE are doing is to support the construction effort to bring piped water from the water mains. Water costs would decrease with this arrangement, especially since water from the mains are subsidised as public utilities. Using the savings, the local people will now use the money for economic empowerment of the community, for example raising ducks and cultivating cassava or for use in organic farming. By securing the community's economic capacity and connecting to activities that improve livelihood, empowering the community and adapting to water shortage for agriculture, people start make choices for implementing high quality farming while securing water resources. For the moment, we are taking measures to use water collected during the rainy season for use in the dry period, but as agricultural activities stabilize, water resources can probably be stabilized as well. This example has already been realized in dry areas in Africa such as Ethiopia and we are aiming towards securing water while professionalizing agriculture.

Actually, we have just begun this initiative, so we are not sure if it will go well, but even to just see if this will go well with luck, we cannot see so quickly. Therefore, we must have a plan that spans 10 to 20 years. I am sorry for not explaining first, but CODE is not an organization for emergency response and our motto is to work on the long-term recovery process and disseminate the necessary experiences. In this sense, the current example was regarding sustainable water security and sustainable agriculture. To think about it, as Ms. Haider mentioned, indigenous activities fit to the indigenous culture and history and practices of the communities is most important to most effectively draw out the capacity of local people. In the case of agriculture, water and sun is its most basic necessity and without these, it is impossible but even with water and sun, concrete cannot be made, so we should keep agriculture in mind while investigating what materials are fit for construction.

In Afghanistan as well as in Iran, for example, there are some buildings constructed mainly by adobe, which is made simply by mixing soil with water and drying it under the sun. To tie together these bricks, they used to use plaster, which is no longer used. I think we can revive such knowledge to respond to risks. Whether the same can be applied in large cities is another large issue, but in terms of rural areas, I feel that this would be very effective. So we are engaged in a project to secure water resources by focusing on agriculture.

Kato
Thank you very much. I think that you are practically implementing around the world today's theme of disaster management towards regional development. In order to do so, the keyword was to base the activities in indigenous skills and culture. Now we are running out of time so we would like to briefly cover the next topic. In continuation of the current talk, it seems that Mr. Murai is conducting assistance in many different places by identifying solutions fit for local characteristics, but in the Great Hanshin Awaji Earthquake in Japan 14 years ago, how are the lessons and experiences from the Great Hanshin Awaji Earthquake in Japan 14 years ago being applied find the solutions that are fit for regional characteristics?

Murai
There are many people here from Kobe so I do not want to speak too much about this, but it is not entirely true to say that the process we have been promoting has all been followed up in these 14 years. There are many points that we think perhaps should have been done in one way or the other or that certain things should have been done with more thought put into it. When disseminating experiences, I think it is also important to pass on examples of failures or partial failures. When going abroad, we do less of dissemination and learn from the other country and I have more experiences learning. By further passing on these acquired knowledge to other countries, our capacity is increased and as Mr. Matsuzaki mentioned, learning from each other prevents the erosion of memories and I think this is a wonderful message. By being conscious of learning from each other, we will create a mutual relationship that promotes dissemination of knowledge.

Kato
So, does it mean that the lessons from the disaster 14 years ago is being carried on through learning from the experience and background of disasters and sharing it internationally?

Murai
Yes. As a final message, "Learning from each other creates a connection, and a connection over borders will change the world." This is what I gathered from Mr. Matsuzaki's talk on mutual learning.

Kato
I think that is a wonderful message. Now, we are pressed with the time. So lastly, I would like to request comments from Ms. Haider and Mr. Wan. Japan is said to be advanced in terms of the disasters, whether we truly are in terms of the technology level or the policy level – that we will leave it up to you to assess, but Japan has certainly experienced many previous disasters. So, please tell us what you look forward to or expect from Japan in about one and a half minutes.

Haider
Thank you. Very briefly, I think what you have here is wonderful, especially in terms of your preparedness. I would like to address two points; one is your preparedness and managing a huge disaster response program in a very systemic way in a shortest possible time.

I came here in 2005, that was the tenth year since the Great Hanshin Awaji Earthquake, and I did not see any sign whatsoever of this huge earthquake you had, which only showed how quickly you recovered from the earthquake you had. So how you manage such huge voluminous recovery initiative that is where you can always teach the world, and I am talking from the position of Bangladesh.

The other thing I would think that you could always teach the world is about the very point that Mr. Murai talked about, to stop the fading of memory. The way you have preserved your lessons through all these programs, I was just amazed to see the Disaster Reduction Museum the other day, and the other museums and the way you are preserving all your lessons that you have learned for the future generations, I think, is amazing. That is where in Bangladesh we are completely lagging behind. So those are the areas I think you can teach the world, and definitely, you can teach countries like Bangladesh.

Kato
Thank you very much, and then Mr. Wan.

Xiaopeng
As a member who was affected by the disaster, first of all, I would like to say thank you to the Japanese government, and the people, and the civic groups for supporting us in various ways. The Japanese emergency response team especially drew an emotional response from all over China when they paid respects to a victim. In these aspects, cooperation for regional disaster management can take down political obstacles. What I am now looking forward to from Japan is that the advanced technology and skills accumulated over the years will be in great demand. Another point which I am most interested in is the high level of consciousness for disaster management held by the citizens of Japan from daily life and this is very important and can be transferred not necessarily through the government but

through civil organizations and educational settings. For example, the materials presented today by a member of the education board can be taken abroad and if we can promote such disaster management awareness, this will be most affective in implementing future disaster management.

Kato
Thank you very much. In such a short time, discussion may have been insufficient, but at least we have been able to identify key points such as indigenous culture, knowledge and skills passed on in local communities, and keeping in mind that there is no solution that applies to any location, as was mentioned initially, I think we were able to reaffirm the importance of how we must think of how to combine hardware and software solutions and how to balance bottom-up approaches from the community and top-down approaches. We must also keep in mind that there is no one solution that applies to any location.

In regards to Japan in the future, as was mentioned by Professor Murosaki, including what Japan has experienced, and also including the international experiences by Mr. Murai, Japan should assume a position to be able to accumulate these lessons to be able to share them internationally. We have reached the time, so we would like to end the panel discussion here.

Thank you for your participation.

Shoichi Ando
We would now like to begin the question and answer session. We have just collected the question forms and received about 15 questions, but due to time constraints, we have selected 4 questions to ask the specialists. More than half of the questions were related to China, so we will combine similar questions. Before we begin these questions I would like to ask Professor Murosaki to elaborate on the topic of gender discrimination, which he mentioned in his keynote speech as one of the critical problems arising during disasters.

Yoshiteru Murosaki
This is the toughest question for me to answer. In a big picture, there are exit and entrance to the issue. Exit refers to the fact that as a result of disasters, women are almost always more affected in greater numbers. As was mentioned in Saito-san's presentation, also during the Great Hanshin Awaji Earthquake, there were clear differences in the mortality rate with women accounting for 55% and men 45%. So we ask why this is the case and we must look into the entrance issue. I think in the big picture, women's social participation is limited. For example, in Japan, men have many chances for disaster management training when they go to their workplaces, but women who stay home do not have such opportunities. Probably these factors and because it is difficult for various information and experiences to be communicated to women, and I think such social structure still remains.

In terms of social participation, for example, if we look at occupations such as fire fighters, in Japan 90% are still all men and women less than 10%, but the result of these different factors have contributed to limiting women's disaster management capacity and survival rate. I shall present you one case. Four years ago in Japan, there was a large earthquake in Japan in a place called Chuetsu in Niigata Prefecture. A that time, when I went to Chuetsu I experienced that when we must decide something, voices of the people in the village immediately unified. When I asked if this was the opinion of the entire village, they replied that it was so – and I was surprised how the decision to relocate the entire village was decided in an instance. Upon further inquiry, I found out that if the head of the household, the father of the house make a decision, it was the decision of the entire family, and if the head of the village or the head of the ward makes a decision, this was an unanimous decision for the whole village. So women cannot participate in such decision-making processes and children also cannot participate. But recently, when I went to Chuetsu in Niigata, all the women were very lively and involved in activities. Community recovery development was being led by women. When asked why such a change happened, they replied that men alone could not implement recovery. In the end, they asked for the women's opinion and also that of their children working in Tokyo. In such a case, those who gave good ideas were kids in Tokyo or the women. The children, for example, wanted to develop the village through eco-tourism or developing agriculture with people from the city and women also suggested a variety of projects. And because of their involvement, children who went to Tokyo now started to come back to live in Chuetsu to implement the projects. The women also start to express their opinions so now they also take responsibility of community development. This is a case that shows how participation increases disaster management capacity. I hope this answers your question.

Shoichi Ando
Thank you very much. The next question is from Mr. Sugeno and this question goes to Professor Yuan Mayong. So as Professor Murosaki mentioned, there are different issues and needs pertaining to gender, elderly, children, and the physically differently-abled people. In the Tsinghua Restoration Plan, do you have these issues and different needs considered?

Yuan
In the national level, we discussed the urban structure and we discussed the urban master plan. And in the regional level where we consider the construction level and technical engineering issues. And to your question, in the regional area, I think there is a tendency that we should consider those matters at a regional level.

Ando
Mr. Yuan in the regional level can you respond to this question? There is a similar question with regard to the consideration towards the differently-abled people. The software and hardware both are incorporated when we consider the differently-abled people in constructing the infrastructure and buildings for the disabled people in respect to disaster prevention such considerations are being made.

Yuan
With regard to the consideration towards the differently abled people, such consideration is not so advanced as in Japan. But having said so, in the future, I think we will put more emphasis with regard to the consideration towards the disabled. Because, right now, in the village, we do not have such considerations, but in the urban area with regard to facilities, we have various considerations for the disabled including blind people. So we have special design for the differently-abled.

But with respect to this earthquake this time, in restoring the housing, the housing reconstruction is mainly conducted in the village area. So with regard to our restoration plan of this earthquake, we do not have so much consideration but such consideration should be made in the future not for just disaster prevention but the total urban planning issue.

Ando
Thank you very much. Next we have a question to Mr. Yuan from Matsubara of CBC. In the mountainous area, you talked about the landslide, and specifically what kind of restoration plan do you have for such landslides? Please elaborate.

Yuan
With regard to these landslides in the mountainous area, in the region where it is prone to landslides in the restoration plan, the social infrastructure of the region and the buildings must meet the high standards. And in the restoration plan this time, to the mountainous area where there is lots of landslides seismic assessment is made and when it is necessary, transfer is encouraged, or sometimes there are measures taken in order to prevent landslides.

With regard to landslides, as a comprehensive measure, it takes time and cost to prevent such landslides. But whether – it is highly evaluated, but there are no simple ways – there are simple ways to prevent landslides, maybe it might not be possible to do sufficient prevention measures against landslides, but we are considering applying some simple measures to prevent landslides. In about 10 years from now or during the next 10 years, the possibility of landslide is said to be high. Thank you.

Ando
Thank you very much. We have received more questions, however, in China, most of the affected region was in the urban area as well as in the mountainous area. And with regard to the mountainous area, the Niigata experience in 2004 and in case of urban area the experience in Kobe can be leveraged or utilized effectively for the restoration of your earthquake in China. So this concludes our question and answer session. And thank you very much.

Closing Comments

Tomokatsu Ishigaki
Bureau Chief, Yomiuri Shimbun Osaka

I am Ishigaki, Bureau Chief in Kobe of Yomiuri Shimbun. It was a great opportunity for us to hear very informative presentations by many experts. Thank you very much. I would like to also express my gratitude to all those who participated in this symposium.

Through the keynote speeches, country reports, and panel discussion, we were able to learn the importance of not forgetting the viewpoints of disaster management when promoting regional development even during non-emergency times.

Since the Great Hanshin Awaji Earthquake, there has been major disasters around the world almost every year. These include the Great Sichuan Earthquake in China and within Japan, the Iwate Miyagi Inland Earthquake. The characteristic of recent disasters is the great magnitude of the damages. It is being said amongst specialists that this is an era of "Mega Disasters". Some refer to the influence of climate change. In such an era, carrying on the lessons from the Great Hanshin Awaji Earthquake is a responsibility for former disaster area Kobe, which experienced a major disaster. In order not to replicate damages in similar disasters and to find out how we can reduce damage, we must learn and think with people from other disaster areas.

Exactly 14 years from the Great Hanshin Awaji Earthquake, yesterday on the 17th at 5:46AM, many people converged at the Higashi Yuenchi Park in Kobe city. There, they quietly closed their eyes to pay respects by the glow of the candles. When we think about the sorrows of those who lost their loved ones, I felt even stronger about the importance to keep on disseminating the message of disaster reduction. In today's Symposium, we were able to see how the lessons from the Great Hanshin Awaji Earthquake was being applied to disaster management activities around the world and the lessons from Kobe are also contributing to disaster recovery. In order to implement disaster resilient safe city planning, we must continue to convey the lessons and experiences from the Great Hanshin Awaji Earthquake and apply these in each person's daily life to ingrain it as a culture of disaster management. I hope that today's Symposium contributed even a little bit towards such a world. Thank you very much.

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"Disaster Resilient Regional Development Strategies in the World - From Kobe to the World"
International Disaster Management Symposium 2009 Proceedings

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