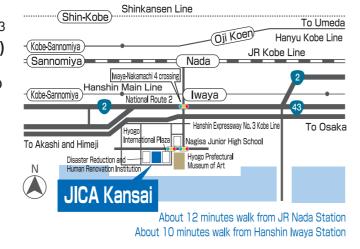


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# Special symposium on the 20-years of reconstruction after the GreatHanshin-Awaji Earthquake The lessons from disasters and the way forward of international cooperation $\sim$ Hyogo and the world united through disaster risk reduction and

reconstruction~

# Report



Organized by Japan International Cooperation Agency (JICA) Hyogo Earthquake Memorial 21st Century Research Institute Hyogo Prefectural Government









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#### 阪神・淡路大震災復興20年 特別シンポジウム 災害の教訓とこれからの国際協力~防災・復興がつないだ兵庫と世界~ 主催: 独立行政法人国際協力候構(JICA), 公益財団法人ひょうこ言災記念 21 世紀研究機構, 兵庫

Special symposium on the 20-years of reconstruction after the Great Hanshin-Awaji Earthquake

# The lessons from disasters and the way forward of international cooperation

~ Hyogo and the world united through disaster risk reduction and reconstruction ~ ?

## Date: January 18th, 2015 Venue: Ohwada Grand Banquet Room, KOBE PORTOPIA HOTEL

Lessons from the Great Hanshin-Awaji Earthquake and dissemination to the  $(10:00 \sim 12:00)$ Part 1 world through JICA program

- 1. Opening Mr. Motonori Tsuno, Director General, JICA Kansai (Moderator)
- 2. Opening Ceremony Nishinada Elementary School "Shiawase wo Hakobu Gassyoudan" (Chorus team)
- 3. Opening Address Dr. Makoto lokibe, President, Hyogo Earthquake Memorial 21st Century Research Institute
- 4. Address by a Representative of the Organizers Mr. Toshizo Ido, Governor, Hyogo Prefectural Government
- 5. Address by a Representative of the Guest and Head of the United Nations Office for Disaster Risk Reduction (UNISDR)
- 6. Video: "Japanese Disaster Management System used in the WORLD" (short ver.)
- 7. Keynote Speech

Dr. Akihiko Tanaka, President, JICA

#### How lessons from the Great Hanshin-Awaji Earthquake are used in their Part 2 respective countries

- 1. Video: "Japanese Disaster Management System used in the WORLD" (long ver.)
- 2. Reports from ex-participants of JICA training program

Case1 Mr. Şahabettin Harput, Turkey Case2 Dr. Long Di, China

Case3 Mr. Boris Sáez, Chile

Case4 Mr. Isaias Mendoza Panganiban Jr., Philippines

Case5 Mr.Noer Isrodin, Indonesia

3. Panel Discussion

Coordinator

Mr. Tomio Saito, Chairman of the Board, Hyogo International Association

#### Panelist

Mr. Isamu Okada, Fire Chief, Kobe City

Dr. Yoshiaki Kawata, Executive Director, Disaster Reduction and Human Renovation Institution Dr. Hiroshi Kato, Director, Hyogo Institute for Traumatic Stress Ms. Keiko Kiyohara , Professor, Kobe Gakuin University Mr. Masami Fuwa, Director General, Global Environment Department, JICA

4. Closing Address

Dr. Makoto lokibe, President, Hyogo Earthquake Memorial 21st Century Research Institute

Ms. Margareta Wahlström, Special Representative of the UN Secretary-General for Disaster Risk Reduction

(13:30~17:00)

# **Profile of Speakers**

### **Keynote Speech**



#### Dr. Akihiko Tanaka

#### President, Japan International Cooperation Agency (JICA).

Before assuming the present post, he was Professor of International Politics at the Interfaculty Initiative in Information Studies and at the Institute for Advanced Studies on Asia, the University of Tokyo. Most recently he was Vice President of the University of Tokyo (2011-2012), Executive Vice President of the University of Tokyo(2009-2011), and Director of the Division for International Affairs of the University of Tokyo(2008-2010). He obtained his Ph. D. in Political Science at the Massachusetts Institute of Technology and his bachelor's degree in International Relations at the University of Tokyo. He received the Medal with Purple Ribbon in 2012 for his academic achievements

### **Ex-participants of JICA training program**



#### Mr. Şahabettin Harput

#### Minister of the Interior's Secretariat Governor (ex-Bursa Province Governor of Bursa Province), Turkey

Program participated: Disaster Mitigation Project (FY2006)

Program implementing organization: Disaster Reduction and Human Renovation Institution

Activities after JICA program: While he was taking a position as a secretariat governor of Ministry of Interior, he observed various facilities and museums focusing on disaster management, such as Disaster Reduction and Human Renovation Institution (DRI) in Hyogo. Based on this experience, during his assignment as a governor, he initiated and led to construction of a full-fledged disaster prevention museum in Bursa. Since its opening in August 2013, he had been actively promoting to invite children from other prefectures to the museum in collaboration with Ministry of National Education.



### Dr. Long Di

#### Professor, Institute of Psychology, Chinese Academy of Sciences, People's Republic of China

Related project: Project for Capacity Development on Mental Health Services for Reconstruction Support of Sichuan Earthquake Program implementing organization: Hyogo Institute for Traumatic Stress

Activities after JICA program: She acted as Chinese expert in JICA project' Capacity Development on Mental Health Services for Reconstruction Support of Sichuan Earthquake' which was implemented from 2009-2013. Through the project, as a project counterpart, she had greatly contributed to the development of training program for personnel engaged in psychological and psychosocial support. Even after the project is over, in many areas of China, she is providing PTSD (Post Traumatic Stress Disorder) support to victims, in cooperation with NGO and other stakeholders.



### Mr. Boris Sáez

#### Head of Department Disaster Risk Management Dept., Municipality of Talcahuano, Republic of Chile

**Programs participated:** Community Based Disaster Risk Management (FY2013)

Program implementing organizations: Kobe City Fire Bureau, Plus Arts (NPO) Activities after JICA program: He had established disaster risk reduction department in Municipality, which is the only disaster risk management department in Municipality level of Chile. In 2014, in collaboration with Ministry of Education, he has been conducting awareness raising activity for disaster prevention at elementary schools in Talcahuano City. The municipality had organized 2 different types of disaster education events "Iza! Kaeru Caravan!" in July 2014 and "Red Bear Survival Camp" in December 2014 on their own, replicating what Mr.Sáez learned in Japan. He is planning to continue raising awareness activity in



### Mr. Isaias Mendoza Panganiban Jr.

Guagua Secretary to the Sanggunian and Advisor, Municipal Disaster Risk Reduction Management Council, Town of Guagua, Province of Pampanga, Republic of the Philippines

**Program participated:** Pre-Recovery Planning from Natural Disasters (FY2012)

Program implementing organization: Kobe Institute of Urban Research

Activities after JICA program: By learning an idea of Kobe City's community involvement in the recovery process of city planning and development after the Great Hanshin-Awaji Earthquake, he encouraged to involve communities in the process of those of the Philippines. His plan has been brought to the attention of Ministry of Interior and Local Government and now it is considered to develop similar plan to other local governments as well.



### Mr.Noer Isrodin

Head for BASARNAS Training and Education Center, National Search and Rescue Agency (BASARNAS), Republic of the Indonesia

**Program participated:** Rescue Techniques(FY2004)

Program implementing organizations: Osaka Municipal Fire Department

Activities after JICA program: He has been in charge of conducting search and rescue activities to staff members in the Agency, and since his assignment as a head of Training Center, he is disseminating technique and knowledge he learned from JICA program to Indonesia. In 2011, he was dispatched to disaster stricken areas in the Great East Japan Earthquake as an Indonesian rescue team member



#### Mr. Tomio Saito Chairman of the Board, Hyogo International Association

After Deputy Director General of Office of the Governor and Director of Secretariat Division, Director General of Nishi-Harima District Administration Office, etc., he was appointed to the first Chief of Emergency Management, who is responsible for all over the matter in the emergency time, in Hyogo Prefectural Government in 1996. Especially he provided the great efforts for improving and reinforcing the disaster management measures through the experiences and lessons from the Great Hanshin-Awaji Earthquake. Before assuming the present post in 2005, he became Treasurer of Hyogo Prefecture in April, 2001, and was appointed to Vice Governor of Hyogo Prefecture in September 2001

#### Mr. Isamu Okada Fire Chief, Kobe City





#### Dr. Yoshiaki Kawata Executive Director, Disaster Reduction and Human Renovation Institution

After he served as Associate Professor and Professor at Disaster Prevention Research Institute, Kyoto University, he was appointed Director, Research Center for Disaster Reduction in 1996; subsequently became Director at Disaster Prevention Research Institute in 2005. He concurrently serves as Executive Director, Disaster Reduction and Human Renovation Institution from 2002. He worked as Director, Kansai University and Professor at Faculty of Environmental and Urban Engineering in 2009. He serves as Chairman in 2010 and Director at Research Center for Safety Science, Kansai University in 2012. His specialty is disaster prevention, disaster reduction and crisis management.



#### Dr. Hiroshi KATO Director, Hyogo Institute for Traumatic Stress

After taking a part in psychiatric emergency at Tokyo metropolitan Bokutoh Hospital, he has been working for "Institute for Traumatic Stress", a victim support organization of the the Great Hanshin-Awaji Earthquake. From 2004 the institute expanded its functions as "Hyogo Institute for Traumatic Stress", and there he has been taking responsible roles as a clinical psychologist and a researcher on trauma and PTSD. He has assumed the present post from 2012. He is dedicated to develop both domestic and international human resources in the field of mental health care.

# Ms. Keiko Kivohara Professor, Kobe Gakuin University

After the Great Hanshin-Awaji Earthquake, she had been in charge of the recovery from the earthquake as Director General, Citizens' Support Bureau, General Coordination Department, and as Director General, General Coordination Department, the Hyogo Prefecture Great Hanshin-Awaji Earthquake Reconstruction Headquarters. Especially she put the emphasis on helping disaster victims find something live for and how the administrative part play a role in order to realize the proceeding of the recovery and their participating in the recovery effort themselves to disaster victims Before assuming the present post in 2014, she was Chief Executive Officer, Lifestyle and Social Service Department, and Special Advisor to the Governor in Hyogo Prefectural Government, and Vice President, Hyogo Earthquake Memorial 21st Century Research Institute in 2012.

#### Mr. Masami Fuwa Director General, Global Environment Department, JICA

Before present post, he was responsible for administering infrastructure development, including transport and urban development, water resources development, etc., in several departments, such as Egypt Office, Middle East and Europe Department, and Economic Infrastructure Department. He was also one of responsible persons for post-disaster reconstruction projects for community, using the lesson learned of the Great Hanshin-Awaji Earthquake, at the time of Indian Ocean Tsunami disaster as well as Marmara earthquake in Turkey.

Before assuming the present post from 2014, he held prominent positions such as Director of Fire Suppression Department, Prevention Department, Kita Fire Station and Suma Fire Station of Kobe City Fire Bureau. He encouraged the establishment of JICA training program "Community Based Disaster Risk Management" while he was enrolled as a director of Prevention Department in 2009. As of 2014, the number of participants has accumulated to 145 from 45 countries, including ex-participant Mr. Boris Sáez, a

# **Opening** Address

President, Hyogo Earthquake Memorial 21st Century Research Institute
Dr. Makoto lokibe



# Address by a Representative of the Organizers

Governor, Hyogo Prefectural Government Mr. Toshizo Ido

The students of Nishi Nada elementary school marked the start of this symposium with a chorus of the song "Shiawase Hakoberu Yoni" (Bring happiness to the World). This song was written at one of the temporary shelters two weeks after the Great Hanshin-Awaji Earthquake, with the spirit of "We will rebuild our home town, Kobe." and "We will make the best of every single day for the people we lost." To support the spirit and hope of these people, Hyogo Earthquake Memorial 21st Century Research Institute, Disaster Reduction and Human Renovation Institution and Hyogo Institute for Traumatic Stress were established.

The Great Hanshin-Awaji Earthquake struck this area without warning and destroyed everything in an instant. Since then, people who survived the earthquake have been moving forward with a shared determination to live strong for those who died. We are grateful that we can commemorate the 20th anniversary year of the Great Hanshin-Awaji Earthquake with so many people.

Up until three years ago, I had been serving as the President of the National Defense Academy of Japan (NDA) for five years and eight months. During the final year of my service as President, I was also serving as the chair of the 'Reconstruction Design Council in response to the Great East Japan Earthquake.' When I was serving as the President of the NDA, we started to focus on expanding our exchange activities with other military academies all over the world. Now, every year, we welcome students from American and French academies for four months. From military academies in Asia, we have welcomed approximately 100 students each year for the past five years. Through these exchange programs, the students of the NDA and these overseas students learn together and share knowledge with each other.

In fall 2011, I visited the Asian countries where the NDA conducts exchange programs with local military academies. In each country, I expressed my appreciation for their cooperation with the NDA's exchange activities, and also as the chair of the Reconstruction Design Council, I expressed my sincere gratitude for their generous support and aid regarding the Great East Japan

Earthquake. When I thanked them for their cooperation, I received similar and extremely heartwarming comments from these countries. They said "For many years, we have been receiving help and support from Japan, including ODA (Official Development Assistance). When thinking of the amount of support we have received, the cooperation we offered is just a little something to say thank you." Through this trip, I realized that these Asian countries still remember the cooperation we offered, although the era in which Japan was the number one donor of ODA, in the 1980s and 1990s, has passed.

When I traveled to the Middle East, the local people told me that "the cooperation from Japan is greatly appreciated, compared to the cooperation received from other countries. Japanese cooperation activities are not like one-sided lectures. They think about solutions for individual issues and obstacles together with us, as friends. We really appreciate that Japanese organizations consult with us and implement cooperation projects by using their experience."

Nowadays, Japan's Self-Defense Forces undertake not only a national defense role, but also multiple roles in addition to this. When the Great East Japan Earthquake occurred, General Eiji Kimizuka, who was the Commander of the Joint Task Force-Tohoku, said to his troops: "When you conduct support activities, put yourself in the shoes of the disaster victims and their families. When you carry a body, treat him or her as your own family." The feeling of compassion shared by the Self-Defense Forces and by the Japan International Cooperation Agency (JICA) is exactly the same. It is all about a "caring" feeling for people.

Japan has faced numerous disasters in the past. Based on this experience, we have conducted various international cooperation activities for disaster prevention, and have worked at preparing our country, our society and our people against further disasters. Today, we will learn more about the projects conducted by JICA. I believe this symposium will be a significant and meaningful opportunity for us to discuss the future of international cooperation for disaster risk reduction. On the occasion of the 20th anniversary of the Great Hanshin-Awaji Earthquake, Hyogo Prefecture hosted a memorial ceremony at Hyogo House, which was honored by the attendance of Their Majesties The Emperor and Empress. It was with great pleasure and honor that I received a comment from Their Majesties that it was a very cordial and positive ceremony. On the 10th anniversary, the emphasis was on examining how much of the reconstruction plan we had achieved towards our goal of creative reconstruction. Our challenge at the time was deciding our approach for the next ten years, based on the results of this examination.

Twenty years after the incident, we seldom see tangible traces of the earthquake. However, we still have unsolved challenges, including support for the affected people who are getting older, and revitalization of the community. In addition to these, we have an even more significant challenge: finding out how we can utilize our experience and lessons learned from the earthquake for the future, and preventing that knowledge from fading away from people's minds.

Ten years ago, the second United Nations World Conference on Disaster Reduction was held in Kobe, and the Hyogo Framework for Action (HFA) was adopted there as a global standard for disaster risk reduction (DRR). The conference also gave birth to the International Recovery Platform (IRP), which has been active for the past ten years.

I believe that the importance of community-level DRR initiatives, as covered in the HFA, is the point that best reflects our experiences of the Great Hanshin-Awaji Earthquake. In the past ten years, the number of countries that established organizations dedicated to comprehensive DRR measures has increased fourfold, and those involved in DRR education, threefold. When Typhoon Haiyan hit Leyte Island in the Philippines two years ago, the DRR framework that had been built by the Philippine Government on the basis of the HFA worked well in collecting disaster-related information, transmitting warnings, and instructing evacuations.

When I was invited to Thailand and Indonesia to deliver lectures six months after the 2004 Indian Ocean earthquake and tsunami, I said with confidence, "If you have any disaster-related trouble, consult with JICA. They will provide you with appropriate options and measures." I emphasized that establishing a partnership



with JICA is also the best way to take reference from Hyogo's recovery and reconstruction efforts. Hyogo Prefecture and JICA entered into a three-year comprehensive partnership agreement in 2013. Under mutual cooperation, Hyogo Prefecture must develop horizontal networks with areas affected by disasters and areas with a high likelihood of being affected by disasters in the future, both within Japan and around the globe. This is an important duty of Hyogo Prefecture.

The third United Nations World Conference on Disaster Risk Reduction will be held in Sendai this coming March, where a post-2015 framework for DRR that comes after HFA will be discussed and adopted. At the conference, we are planning to offer five proposals: (1) promotion of creative reconstruction, (2) attaching importance to international cooperation among local governments regarding DRR measures, (3) enhancing disaster response capabilities on the local government level, (4) putting emphasis on disaster education and learning, and (5) organizing and sharing lessons from the disaster.

Initiatives to share disaster experiences are spreading around the globe. A disaster training center was established in Bursa Province in Turkey, which was inspired during the JICA's DRR training program that included a visit to the Disaster Reduction and Human Renovation Institution in Hyogo. Meanwhile in Banda Aceh, Indonesia, a tsunami museum was opened with donations from Hyogo citizens. It was established based on a request from local people, that they needed a base to convey the extent of damage from the tsunami and earthquake to future generations, since earthquakes occur in Sumatra on a 50 to 100 year cycle, which means survivors will not live to pass on their experiences. Such awareness being developed in an affected area is truly beneficial in enhancing their disaster response capabilities for the future.

I would like to express my best wishes for the success of this symposium, which features reports from JICA participants who have field work experience, and the examination of local networks from the viewpoint of international DRR cooperation. Please also allow me to offer my sincere gratitude for the support provided by many people during the 20 years since the earthquake, as well as my hope for your continued support for and guidance of Hyogo Prefecture and the City of Kobe.

# Address by a Representative of the Guests

Special Representative of the UN Secretary-General for Disaster Risk Reduction and Head of the United Nations Office for Disaster Risk Reduction (UNISDR) Ms. Margareta Wahlström

Today, I would like to talk about the positive aspects that an international framework, the Hyogo Framework for Action, or HFA, brought about concerning international cooperation, as well as about the challenges that need to be overcome, from the viewpoint of international cooperation and disaster risk reduction.

We should not recognize disasters as mere events, but rather, we must retain a continuous risk management mindset and take appropriate measures, because disasters have a significant impact on the whole of society.

In recent years, vulnerability to disasters has increased in many countries. One reason for this is the increase in urban floods, as well as earthquakes and volcanic eruptions. When a disaster occurs, it disrupts supply chains and has a significant impact on the economy. Disasters, even if they aren't large-scale ones such as major earthquakes or tsunamis, will have serious adverse impacts on our society, economy and human resources. A great many actors have become interested in disaster risk reduction over the past few years, and they are taking part in such activities. Until recently, companies around the world have sometimes been unwilling to share information about disaster risks, or to contribute to disaster risk reduction and disaster response. With the private sector's increasing awareness of this issue in recent years, however, it is very important for us to cooperate with them. It is also necessary that the whole of society learn from past disasters and improve the measures for disaster risk reduction. By implementing new measures, we may discover new challenges and be required to take additional measures for further improvement. Such a continuous learning process can improve our ability to reduce disaster risks. Early warning and evacuation systems are examples. Japan is a country that has put continuous learning into practice.

The Hyogo Framework for Action (HFA) describes the role of all stakeholders and the necessity of their support, although it says that the government has the primary responsibility for taking effective measures to reduce disaster risks. The cooperation introduced by this framework has been utilized by ODA and other organizations. In Japan, JICA has been playing the central role in incorporating disaster risk reduction efforts in its development policies, which has built cooperative bilateral relationships with many countries. The mechanism of the National Platforms that HFA advocates is important for promoting disaster risk reduction policies at the national level. It is also important that multiple stakeholders participate in the National Platforms, consider their measures to reduce risks, and have an impact on the legislation, policies, and process of resource allocation.

When looking at regions, as part of the UN process, we organize forums called regional platforms. Ministerial conferences are held in Asia and other regions and reflect higher levels of political commitment. Regional organizations created as the result of such commitment play an important role in promoting disaster risk reduction in the region, as seen in Africa and the Arab region. Producing a synergistic effect with these national and regional movements, the Global Platform has been held every two years since 2005, and is now the driving force for global discussion and the assessment of progress.

In addition to all the efforts at the global, regional, and national level, we are conducting the "Making Cities Resilient" campaign, focusing on local governments. It is important that many local governments participate in it, learn from each other, and make their efforts for disaster risk management visible through this campaign.

After the 2005 UN World Conference on Disaster Reduction, comprehensive learning about disaster risk reduction at the global level has been carried out, followed by assessment of the progress made. Over the next five years, further advancement of economic mechanisms, education, enlightenment, strategy, and development of shared ideas is expected.

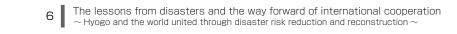
Since the adoption of HFA, the establishment and enhancement of National Platforms has often been seen at the national level. In the discussion at HFA2 (Post-2015 Framework for Disaster Risk Reduction), the importance of the national mechanism has been

discussed. Above all, the importance of cooperation is being emphasized in the HFA2 discussion. Platforms for cooperation are important not only for governments and international organizations, but at all levels including academic institutions, local governments, and community organizations.

Today, many experts around the world are supporting efforts for disaster risk reduction, passing on the various lessons learned. After the Indian Ocean tsunami, one country remarked at the UN World Conference on Disaster Reduction in Kobe that they would allocate 10% of their ODA budget to the implementation of HFA. Although each country is taking certain measures, there is still more to improve.

In international cooperation on disasters, it is important to have an idea to support other countries in invisible ways, even if they are not calling for any support. For example, we can at least raise the issue of the importance of disaster risk reduction, or as a donor, we can allocate part of our investment (support) for the safety of our society. It is important to raise awareness of the importance of such support, by giving an example such as the investment in health infrastructure, for instance. Schools and hospitals in a safe environment are specific examples of that. A number of donor countries are providing funds for climate change, and such investment for adapting to climate change will produce good results if it is integrated with support for disaster risk reduction and development. The final result of the discussion at the UNFCCC Conference of the Parties (COP21) to be held in Paris in December 2015 will likely to construct the framework of international cooperation for future climate change. This discussion is going to be extremely meaningful for setting the global models and standards, and also important from a financial point of view. 2015 is a very interesting year. It is the year in which important conferences are going to be held to discuss three major themes-disaster risk reduction, climate change, and development.

A few months ago, I was asked by a person from





a certain country whether earthquakes were the only disasters in Japan. Although the Great Hanshin-Awaji Earthquake and the Great East Japan Earthquake are the best known, Japan has various other disasters such as typhoons, floods, and landslides. From now on, when I talk about Japan, I will do it more in the multi-hazard context. At the same time I expect Japan to further contribute to global learning for disaster prevention and risk reduction more from a multi-hazard perspective.

In the future, human resource development will be increasingly important in disaster risk reduction. Japan was the world's largest donor from the 1980s to the 1990s. JICA is committed to the capacity development of developing countries as nations from a long-term perspective. JICA has experts in various fields such as risk reduction, and it is contributing to the development of not only the specific professional capacities of the respective countries, but also capacities in the fields particularly needed for each country, which is really appreciated. Financial support is important, of course, but I would also appreciate Japan's continuous human and technological support in the future. I am grateful to Japan and JICA for the contribution they have made so far.

# The Current Trend of International Cooperation and JICA's Cooperation in Disaster Risk Reduction

President, Japan International Cooperation Agency (JICA) Dr. Akihiko Tanaka

Today I would like to speak about the following four interrelated subjects: 1) the relation between human security and disaster risk reduction, 2) the current state of the world surrounding disaster risk reduction, 3) issues we need to address given the state of the world, and 4) how JICA is addressing these issues.

The first topic I would like to address is the concept of "human security," which was initially introduced in the "Human Development Report 1994" published by United Nations Development Program (UNDP). This concept emerged after the Cold War, when the world started to pay more attention to the insecure conditions of individual human beings. The Japanese government was one of the first to adopt the notion of human security.

Human security is defined as "the right of people to live in freedom and dignity, free from poverty and despair". If this right is not protected, people's existences are directly threatened. Threats to human security can be threefold and include threats to survival, threats to wellbeing and threats to dignity. Threats to survival originate from various factors such as civil wars, terrorism, natural disasters, pandemics, endemics and so on. Threats to well-being not only include threats to survival, but also such phenomena as government failures, market failures and structural poverty. Lastly, threats to dignity can originate from intended or unintended discrimination, or the social deprivation of material and non-material resources.

Threats to human security can be further exacerbated when threats to survival, threats to well-being or threats to dignity converge and interact with one another. We hold human security to be a basic principle of development assistance because it is the most appropriate concept to address the present world system, in which interactions among various systems are very complex. Disaster risk reduction is a comprehensive approach toward preventing and mitigating threats against human security posed by physical systems.

As such, next, I would like to talk about the state of the world as it relates to disaster risk reduction. Firstly, the global cost of natural disaster is increasing as the frequency and severity of disasters have intensified in recent years. No country is immune to disasters, which can occur in developed and developing countries alike. Therefore, developing countries' abilities to respond to these evermore frequent and larger-scale natural disasters are becoming key determinants of their ability to alleviate poverty and to achieve sustainable development.

Secondly, a natural disaster that hits one country can have a serious regional, and in more extreme instances, global economic impact. The 2011 Thai floods affected the Japanese economy by disrupting the supply chain of Japanese manufacturers. According to some reports, 451 Japanese and Japanese affiliated companies in Thailand were forced to shut down due to the floods. Similarly, the Great East Japan Earthquake severely affected automobile production around the world.

Lastly, given these circumstances, global efforts on disaster risk reduction are ever growing. Countries and other relevant stakeholders have made progress in reducing disaster risks at local, national and global levels. In 2005, the 10 year Hyogo Framework for Action was adopted as an international guideline to reduce disaster losses at the second UN World Conference on Disaster Reduction (WCDR) held in Hyogo Prefecture. And in March 2015, the third UN World Conference on Disaster Risk Reduction (WCDRR) will be held in Sendai City to discuss and adopt the post-Hyogo Framework for Action (a post-2015 framework for disaster risk reduction). 2015 is an important year not only for the post-Hyogo Framework of Action, but for the global development agenda as well. The Millennium Development Goals (MDGs), a set of development goals that were adopted in 2000, expire at the end of 2015. The Sustainable Development Goals (SDGs), the new development agenda that will guide the international community, will be adopted after monitoring the progress of the MDGs. A pressing issue related to disaster risk reduction is how to include such agenda in the SDG discussions and incorporate it as one of the SDG goals.

Based on the background I just provided, I would like

to point out five key issues that need to be addressed regarding disaster risk reduction. The first issue is mainstreaming disaster risk reduction. JICA places mainstreaming disaster risk reduction at the core of its policy, so as to "build a disaster-resilient society to protect people's lives from disasters to achieve sustainable development and poverty reduction by incorporating disaster risk reduction measures at every development phase in every sector."

The second issue is promoting investments in disaster risk reduction. Even though government officials in developing countries widely acknowledge the need to invest in disaster risk reduction, implementation of such concept has yet to be seen. This is due to the fact that disaster risk is hard to quantify and therefore regarded as a non-priority issue to which to allocate human and financial resources. But if you look at Japan's history of addressing natural disasters, it is quite clear that investment in disaster risk reduction is cost effective. Japan has experienced significant loss of life and property from natural disasters. Due to these experiences, Japan has mainstreamed disaster risk reduction in its policy and made huge investments to improve its disaster management systems and technologies. As a result, we can say that Japan has suffered relatively small damage even in the recent catastrophic disasters.

Furthermore, JICA developed an economic simulation model to quantitatively prove the benefits of disaster risk reduction measures. This model is a useful tool for explaining the positive returns of investing in preparedness to decision makers in developing countries.

The third issue relates to what to do when a disaster happens, and how to recover and rebuild a society in its aftermath. To address this issue, we emphasize appropriate emergency response and long-term creative reconstruction. This can be summarized by the concept of "Build Back Better," which means to rebuild a better, safer and more resilient society. We believe we should share this concept with the world based on the lessons learned from the dire experience of the Great Hanshin Awaji Earthquake.

The fourth issue is the need to make everyone



realize that disaster risk is everybody's business, from presidents, prime ministers, ministers, governors, mayors, civil society leaders, business community leaders and private citizens. I think all hands should be on deck when addressing disaster. We need to count on everybody's solidarity and support.

The fifth issue is gathering the knowledge and experiences of all stakeholders, including national and local governments, the private sector, NGOs, volunteers and academic institutions. We should include all of these actors in the decision making process for disaster prevention, emergency response, and reconstruction activities. I'd like to also add that during the planning and implementation of such activities, it is imperative to recognize the needs and roles of women. As numerous studies have shown, vulnerability and poverty are closely aligned with gender inequality, and women are disproportionately affected by natural disasters. Therefore, mainstreaming gender considerations into disaster preparedness and educating societies about these concerns contribute significantly to reducing the effects of disaster and improving sustainable development.

Addressing such issues is not always easy and can be very time consuming. However, we need to adopt a longterm perspective and incorporate the concept of disaster risk reduction at the policy planning stage and allocate budget accordingly.

Now I would like to touch upon several examples of how JICA is addressing disaster risk reduction.

First of all, JICA established five strategic goals to mainstream disaster risk reduction. These are 1) establish and strengthen a disaster management system, 2) foster correct understanding of natural disaster risk, 3) implement disaster risk reduction measures for sustainable development, 4) plan for speedy and effective disaster preparation and response, and 5) transition seamlessly from post-disaster emergency response to reconstruction for a disaster-resilient society.

Secondly, with regard to promoting investment in disaster risk reduction, JICA has supported developing countries' initiatives based on Japan's experience. For instance, we supported the Philippine government in the introduction of a flood control and warning system along the Pasig and Marikina Rivers that run through Metropolitan Manila. These preventive investments have resulted in minimizing damages caused by typhoons. It is important to keep in mind that investment in disaster risk reduction doesn't necessarily mean investment in hard infrastructure. It also encompasses investing in "soft infrastructure," such as human resource development. To this effect, JICA conducted a technical cooperation project in Thailand to enhance the local population's capacity for disaster preparedness. In Turkey, we supported the establishment of a disaster preparedness education scheme. This scheme was created based on the approach developed by the Emergency and Rescue Team by school staff in Hyogo (EARTH), a knowledge sharing platform to enhance disaster preparedness in Hyogo. Through this type of collaboration, JICA is building a repertoire of successful examples that highlight that investing in disaster risk reduction is cost effective.

The third characteristic of JICA's assistance is seamless transition from post-disaster emergency response to reconstruction. JICA, as the secretariat in charge of Japan Disaster Relief (JDR) teams, is responsible for the initial response to natural disasters overseas, thereby dispatching rescue, medical and expert teams to disaster-affected countries. One of the ways JICA works to secure a seamless transition is to dispatch recovery/reconstruction experts at the initial response phase to start discussing the details of mid- to longterm recovery and reconstruction plans with the local authorities, even as they are engaging in emergency response.

Furthermore, during the reconstruction phase, JICA can support countries' funding needs to rebuild the infrastructure that is needed to foster a disaster resilient society through concessional ODA loans. However, since most ODA loan projects take 3 to 4 years to be finalized from the planning to the implementation stage, this time lag proves to be too lengthy for a country requesting a loan after a disaster has struck. To overcome such bottlenecks, JICA has introduced the Stand-by Emergency Credit for Urgent Recovery (SECURE) scheme, which is a contingent credit line that provides immediate liquidity to developing countries in the aftermath of a natural disaster. JICA signed its first SECURE loan agreement with the Philippine government following Typhoon Haiyan, also known as Typhoon Yolanda, in 2013.

The fourth characteristic is our focus on training or knowledge co-creation programs. Since its establishment in 1973, Hyogo International Center, which preceded the JICA Kansai International Center, has worked

very closely with Hyogo Prefecture and Kobe City to implement knowledge co-creation programs in many fields, including disaster risk reduction, environment, health care and foreign trade. Following the adoption of the Hyogo Framework for Action in 2005, JICA and Hyogo Prefecture established the Disaster Reduction Learning Center (DRLC) in April 2007. Since its establishment, DRLC has implemented about half of JICA's programs on disaster risk reduction and trained more than 2,000 people from 100 countries. Hyogo Prefecture has also sent 17 officials from the prefectural government, board of education, police department, the University of Hyogo, and other organizations to join JDR teams. In addition, the prefecture has allowed us to use the Hyogo Prefectural Emergency Management and Training Center in Miki City for JDR teams' hands-on exercises. As for Kobe City, we have jointly implemented knowledge co-creation programs since 1981. A newly developed concept called "Disaster-safe Welfare Communities" (BOKOMI), a special communitybased disaster risk management organization created in the aftermath of the Great Hanshin-Awaji Earthquake, has become an excellent case study in our programs. I believe that drawing lessons from Japan's experience can serve as a very effective tool to raise the awareness of developing countries' leaders.

The last characteristic of our cooperation is collaborating with a range of stakeholders. Disaster risk reduction technologies developed by the private sector are playing an important role in international cooperation. The Kansai Economic Federation, a regional economic federation of the Kansai region, believes that there are promising opportunities for Kansai-area private companies to engage in overseas business in sectors that relate to urban disaster risk reduction. Based on such policy, the Federation sent a delegation to Malaysia and the Philippines in September 2014 to conduct an initial marketing survey. Furthermore, if participants in JICA knowledge co-creation programs have the opportunity to visit these private companies and learn about the technologies they are developing, it would not only bring many benefits for both developing countries and Japanese companies, it would also help further promote mainstreaming of disaster risk reduction globally.

I hope that this symposium can be an impetus for the further cooperation between JICA and various stakeholders in the Kansai region in the field of disaster risk reduction, including Hyogo prefecture and Kobe city. I look forward to your continued support and cooperation.

Thank you very much.

### **Reports from ex-participants**

#### Case 1

Established a disaster training center in Turkey, modeled after the Disaster **Reduction and Human Renovation** Institution (DRI)

Central Governor, Minister's Secretariat, Turkish Ministry of Interior Mr. Şahabettin Harput

Turkey and Japan have fostered friendly relations for over 100 years, and have maintained strong cooperation in a wide variety of fields, especially disaster risk reduction (DRR). Turkey is a disaster-prone country from both geographical and geological aspects. In response to the earthquakes that occurred in Kocaeli and Düzce in 1999, we have upgraded our disaster management system. The Turkey General Directorate of Emergency Management, which was launched in 2000, and the other disaster-related organizations, were integrated into the Disaster and Emergency Management Presidency of Turkey (AFAD) in 2009.

When I was working as the Undersecretary of the Ministry of Interior, the ministry and JICA began the first disaster-related project in Turkey, targeted at government officials in administrative positions. The project was composed of disaster management training program and disaster mitigation training program. The disaster management training program, targeted at Vice Governors, District Governors and Deputy Mayors, was attended by 250 participants in the two years between 2003 and 2005, among whom 24 participants received a training in Japan, mainly in Hyogo Prefecture. Many of the participants are now serving as high-level officials in Turkey. The disaster mitigation training program, targeted at technical officials who support mayors and deputy mayors, was attended by 670 participants in the three years between 2005 and 2008, among whom 32 participants received a training in Hyogo Prefecture.

I came to Japan with the then Governor of Bursa Province, observed Hyogo's DRR initiatives, and was impressed to see that a high level of DRR awareness had been developed throughout society in Japan. I thought that the disaster museum in Hyogo, called the Disaster Reduction and Human Renovation Institution (DRI), would be a good model in applying Japan's approaches to Turkey, and I decided to establish the Bursa Disaster Training Center. The Governor of Bursa took a leadership role in promoting this project, and aimed at educating local residents and raising DRR awareness. In the





process, we received a great deal of valuable information from Japan through JICA.

After assuming the position of Bursa Governor in December 2007, I further promoted efforts towards the opening of the center. In March 2013, supported by the cooperation of JICA and Hyogo Prefecture, our management and technical staff visited DRI. Finally, the Bursa Disaster Training Center was opened on August 17, 2013, the 14th anniversary of the Marmara Earthquake, with the attendance of the then Prime Minister Recep Tayyip Erdoğan and high-level government officials. I am proud of the first disaster training center in Turkey, built on the basis of Japan's knowledge in the field of DRR

The central government promotes establishment of similar kinds of institutions in hazardous areas in Turkey, using the Bursa Disaster Training Center as a model. I am sure that the wonderful fruit of the cooperation between Turkey, Japan, the Turkish Ministry of Interior and JICA will be seen in various regions in Turkey in the near future.

Turkey and Japan share a strong and compelling disaster consciousness. With this in mind, I am seriously engaged in my tasks in the Ministry of Interior, such as organizing disaster response centers, enhancing education on the provincial and municipal level, and developing DRR core facilities. Meanwhile, the AFAD and municipal governments are making efforts to establish similar institutions as the Bursa Disaster Training Center across the country. The Bursa Disaster Training Center will surely be able to provide support to such institutions to be established, and play the role of the headquarters, in cooperation with Hyogo Prefecture and Japan.

Under this vision, I believe that it will be mutually beneficial for Bursa Province and Hyogo Prefecture to continue cooperative relations and share knowledge on raising awareness for DRR, as well as the establishment, management, and operation of DRR institutions and related human resource development.

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### Case 2 Mental Health Care in the Sichuan Earthquake in China

Institute of Psychology, Chinese Academy of Sciences, People's Republic of China
Dr. Long Di



Case 3 Community-Based Disaster Education Programs Focused on Elementary Schools in Chile

Head of Disaster Risk Management Department, Municipality of Talcahuano, Chile
Mr. Boris Sáez

On May 12, 2008, a major earthquake struck Sichuan province in China. The earthquake destroyed the basic infrastructure of the region, and caused severe psychological trauma to many people, families and communities. Mental health care was needed, but at the time, China lacked personnel who could provide proper mental care. There was also a lack of coordination among relevant agencies.

Against this backdrop, JICA's "Project for Capacity Development on Mental Health Services for Reconstruction Support of Sichuan Earthquake" was launched in China. The project, undertaken by the All China Women's Federation, the National Health and Family Planning Commission, the Ministry of Education, and the Institute of Psychology of the Chinese Academy of Sciences, had three aims: to create mechanisms at five model sites to provide psychological support, train personnel to deliver mental health care, and enhance awareness and understanding of the importance of mental health care among the government and local people.

Technical support was offered by six Japanese organizations: the Hyogo Institute for Traumatic Stress, Emergency And Rescue Team by school staff in Hyogo (EARTH), the Hyogo University of Teacher Education, the University of Hyogo, the Association of Japanese Clinical Psychology, and the Japanese Society for Traumatic Stress Studies. The main support was for providing training program in mental health care.

One part of the project was a training program in China. A series of three-day trainings in mental health care was held twice a year for the last five years, with participation by a total of over 1,200 personnel, including local government officials, teachers, doctors, nurses and counselors, from five provinces affected by the Sichuan earthquake. Another part of the project was a training program in Japan. In the last five years, 180 people from China attended training programs in Japan and acquired knowledge about the post-disaster mental health care in Japan. The training program in Japan also included disaster education, psychoeducation, and visits to various organizations and communities. The most important things we learned from the training program in Japan were not only knowledge and skills, but also friendships, hope and connections. The connectedness is very important for healing.

The project led to friendships between Chinese and Japanese people. We learned the hope of life from mental health care professionals who themselves have suffered a disaster.

The Project kept going to create connectedness between people in various ways, such as connected by leadership, connected by the five model sites, and connected through education or counseling in a community. We are also working to share project information, and knowledge and skills in mental health care, using publication and the website that the All China Women's Federation created last year.

Now, we hold an annual international meeting periodically. The 6th meeting was held at the end of 2014 in Suzhou, with a variety of workshops. Talks between Japanese and Chinese youth who had experienced a devastating earthquake were deeply moving.

In the last several years, China and Japan experienced devastating disasters, and many people suffered. However, we learned experiences and lessons from the Great Hanshin-Awaji earthquake in Japan through JICA's projects and training program, and developed compassion and wisdom for healing. We think we need to sustain our efforts over a long time like a marathon to recover from the traumas caused by the historic great earthquake. Talcahuano City is home to flourishing manufacturing industries, an airport and a shipyard as well as forests and surrounding oceans, and these features have caused the city to experience natural disasters such as floods and landslides, industrial accidents, and forest fires. The tsunami triggered by the 2010 Chile Earthquake severely devastated the city, which had not been adequately prepared against such a mega-disaster. In order to be fully prepared against the next disaster, the city has since continued its efforts toward better community building and personnel and experience exchanges for technical learning.

The experience of the 2010 earthquake led us to realize the necessity of management throughout the whole disaster cycle as well as emergency response immediately after a disaster breaks out, and, in 2013, the Municipality of Talcahuano established the Disaster Risk Management Department, the first ever disaster management section at a local government in Chile. After that, in JICA training programs, I learned the "Disastersafe Welfare Community (BOKOMI)" initiative by Kobe City and disaster education events for children such as "Iza! Kaeru Caravan! (Let's Go! Frog Caravan!)" and "Red Bear Survival Camp," and I prepared plans to adapt these Japanese concepts for our country. I shared the knowledge and experience I had acquired in Japan with people concerned back home, and discussed a lot with them. Finally, in cooperation with other organizations, we developed a project model particularly suitable for Chile, and provided a new kind of community leader training following the example of the "BOKOMI" initiative I had learned in Japan. In fact, we had offered a first aid drill program for communities after the 2010 earthquake, but that program, as it was just for first aid, had not been able to spread a wide range of knowledge and techniques. In contrast, our new training began providing trainees with lectures combined with practical drills for technical learning, which led the trainees to successfully share their acquired knowledge and techniques back in their communities.

Subsequently, we also gave children the same kind of training. We introduced the concept, techniques and drills for disaster risk reduction to the young members of school safety teams, as we had done with adults. Those children shared their acquired knowledge and techniques about disaster risk reduction with their parents or other



adults close to them, and consequently contributed to raising awareness for disaster risk reduction in each home. Moreover, we wanted to organize a Chilean version of the disaster education event "Iza! Kaeru Caravan!" I had learned in the JICA training program from Mr. Hirokazu Nagata, Chairman of the NPO Plus Arts. We therefore adapted the teaching materials for Chilean children, and invited 200 children in all from 40 schools in Talcahuano City to attend the event we held in cooperation with the related sections, such as the Public Safety and Education Departments of the municipality. The event taught us that a fun-and-learning approach was very effective for children to learn about disaster preparedness, and so we organized a "Red Bear Survival Camp" as our second event, which was successful with 250 children in all attending from 36 schools including 18 schools in other cities. These successful examples are leading to new developments such as the introduction of new education methods by the Mayor of Talcahuano in partnership with Chile's Ministry of Education and the National Office of Emergency of the Ministry of Interior (ONEMI).

That is not enough, however. It is important to establish a system for preparedness for various disasters, by spreading the knowledge and techniques about disaster risk reduction through education and drills and by providing the citizens with useful training. For that purpose, I think, we should encourage the commitment of both the related sections of the municipal government and the various local communities, and foster the exchange of knowledge and experience among them. Furthermore, I hope that we share our municipality's experiences with other local governments and the national government to develop collaborative partnerships with them.

These efforts and ambitions of mine have been motivated by my own disaster experiences in the past. I want to share the concepts I learned in Japan such as "Mutual Help," "Never forget disasters in the past," and "Always be prepared" with my colleagues in the municipality, the local communities and children, make good use of those concepts for greater disaster response capacity and risk management, and, in the end, create a safe society where every family and child can live happily.

#### Case 4

**Community Self-Help Mechanism against** the aftermath effect of the Eruption of Mt. Pinatubo, particularly lahar flows and flood.

Guagua Secretary to the Sanggunian and Advisor, Municipal Disaster Risk Reduction Management Council, Town of Guagua, Province of Pampanga, Republic of the Philippines Mr. Isaias Mendoza Panganiban, Jr.



In 1991, the largest volcanic eruption in the 20th century occurred on Mount Pinatubo in the Philippines, which had catastrophic impacts and brought great sadness to many people. The eruption of Mount Pinatubo produced "lahars"-mudflows of volcanic materialsthat destroyed all structures along its path, including, three-story buildings and schools. Lahars also filled rivers and stream channels, and caused flooding that struck the town square of Guagua. The disaster was so devastating that it wrought havoc to our lives and overwhelmed our hearts.

I learned how to plan for recovery before a disaster happens through JICA's "Pre- Recovery Planning from Natural Disasters" training program. I also recognized the importance of cooperation and coordination between stakeholders, and the concept of social capital. Social capital is a very important concept where various people and organizations cooperate and contribute to early recovery and reconstruction. Through the training program, I learned the importance of helping others while helping ourselves (self-help) to protect our own lives first, and the need to involve people in disaster risk reduction activities.

When I returned to my country, I decided to add new perspectives to Guagua's pre-disaster recovery and reconstruction plans such as perspectives of individual, community, infrastructure, development and crisis management system. With regard to infrastructure, flood control measures were implemented in the town square through JICA's ODA loans project: "Pinatubo Hazard Urgent Mitigation Project Phase III." After I returned from JICA's training program, I was invited by the Philippine Department of the Interior and Local Government, which supervises all local governments, to engaged in a revision process for recovery plans in the 21 local governments in the province of Pampanga, and could bring what I learned during JICA's training program to the revision process. Revised plans reflected the concept of social capital, which I learned in JICA's

training program. Eight months after its initiation, 90% of the process was completed, and the remaining 10% was implemented the following year.

We have had a group called the Barangay Information Organizing and Network Committees (BIONICs) that facilitates networking to ensure consistent community response and sharing of information about disaster risks and other risks in communities. The structure of "community development council (machizukuri kyogikai)," which I learned in JICA's training program, must be very useful for BIONIC's activity. I think BIONIC can be utilized not only for sharing information and networking, but also for developing disaster-resistant communities, expanding in its activity scope.

Last year Typhoon Haiyan (Yolanda, or Typhoon No.30 in Japan) did considerable damage to the Philippines, and reminded us of the importance of predisaster recovery planning, disaster mitigation and cooperation between local governments. Currently, local governments conduct joint drills periodically. We also provide education in schools and communities, and installed rain gauges and water level gauges strategically so that communities can predict floods and rainfall. We are working to foster a disaster mitigation culture by providing disaster education from childhood. Such education for ourselves, others and local citizens is leading to the creation of a disaster mitigation culture.

While it is anticipated that the impacts of climate change on natural disasters are getting bigger, our determination is clear: we will develop a safe, disasterresistant remarkable community like Kobe. Thank you.

#### Case 5

**Former Indonesian Participants Who** Learned Rescue Techniques Worked as Rescue Workers in the Great East Japan Earthquake

Head for BASARNAS Training and Education Center, National Search and Rescue Agency (BASARNAS), Republic of Indonesia

Indonesia is located on the Pacific Ring of Fire, and has been hit by many disasters such as earthquakes, tsunamis, landslides, floods, volcanic eruptions and typhoons. When such disasters or accidents do occur, Indonesia's National Search and Rescue Agency has responsibility to conducts search and rescue operations in accordance with the law.

In 2004, I received instruction from Osaka Municipal Fire Department in JICA's "Rescue Techniques" training program, and passed on what I learned in the valuable training to Indonesia. In 2012, our center sent two persons to receive same JICA's training programs. What I acquired in the training program, such as systematic knowledge, procedures, methods, techniques in the field and the idea of protection of disaster victims was extremely valuable to me since I had been wondering what training should be provided for disasters and accidents in Indonesia. Education to train rescue workers, and information about training centers, facilities, equipment and materials were also very helpful. I also learned knowledge and skills in disaster management systems, water rescue, high-rise rescue, rescue using a helicopter, fire rescue and mountain rescue from Kobe City Fire Bureau. Experiences and lessons from the Great Hanshin-Awaji earthquake were particularly valuable.

After I returned to my country, we initiated several new training programs to enhance the ability of rescue workers in Indonesia. JICA training materials were arranged and used for Indonesia's training curriculum, and the equipment needed for training, e.g. equipment used for searching collapsed buildings, was considered based on what I learned in Japan. In 2013, a National SAR Training Center was built to train rescue workers. Now, the training facility still under construction and located in Bogor (70 km from Jakarta). We are planning to build a part of building esspescially fire and drill tower based on the fire academy of Osaka Municipal Fire Department. The building facility to develop rescue techniques such as confined space rescue techniques,



Mr. Noer Isrodin



high angle rescue, fire search and others. Due to budget limitation we plan to build in 2016. In the programs at the training facilities, skills and techniques gained in the training by the Osaka Municipal Fire Department have been adopted and adapted to situations in the field in Indonesia. New methods such as, particularly, training to rescue persons trapped in a confined space or collapsed building or structure are developed based on what was learned in Japan. Furthermore, since 2013 we have been working on nationwide urban rescue activities to ensure adequate preparation for disasters in urban areas. We also offer short-term training courses for the general public for self-help and emergency response so that they won't lose their lives when an accident or a disaster occurs. We think this kind of effort is especially important in areas that are prone to disasters. We have held three nationallevel search and rescue championships, based on similar events in Japan.

When the Great East Japan Earthquake occurred in 2011, a team of 15 personnels from the Indonesian National Armed Forces, the National Disaster Management Agency, the Ministry of Health, and the National Search and Rescue Agency was organized to provide humanitarian aid from the government of Indonesia, and engaged in searches and evacuation support for victims in disaster-affected areas in the Tohoku region. Indonesia suffered an enormous tsunami in 2004, and I desperately wanted to help people in Japan who suffered from the tsunami.

I learned a lot in the training program in Japan about human resources development. I think we need to continue education and training, and work to prepare for massive disasters on a variety of levels, from the community level to the national level.

## **Capacity Development for Disaster Risk Reduction** through International Cooperation

Coordinator Panelists	Mr. Tomio Saito Mr. Isamu Okada Dr. Yoshiaki Kawata	Chairman of the Board, Hyogo International Association Fire Chief, Kobe City Executive Director, the Disaster Reduction and Human Renovation Institution(DRI)
	Dr. Hiroshi Kato Ms.Keiko Kiyohara Mr. Masami Fuwa	Director, Hyogo Institute for Traumatic Stress Professor, Kobe Gakuin University Director General, Global Environment Department, JICA

Saito Yesterday was the 20th anniversary of the Great Hanshin-Awaji Earthquake. I believe now is the time for us not only to look back at the past, but also to think about the future. Today, we have panelists who are all directly involved in capacity development for disaster risk reduction. We would like all panelists to talk about their experiences and thoughts, and especially, to introduce some not so successful stories, including the lessons and challenges learned, rather than the successful stories. Through this discussion, we would like to highlight the challenges, and take the first step together in implementing future international cooperation for disaster risk reduction and capacity development.

Firstly, we would like each panelist to introduce your project, which was based on the lessons learned from the Great Hanshin-Awaji Earthquake, and outline the achievements and challenges.



**Kawata** I believe that the contents of the training programs need to be refined in accordance with the evolution of society. Also, it is very important to learn from the failures, including the lessons we learned and the challenges we faced. From February to November in 2014, we experienced numerous natural disasters in Japan, including heavy snow, torrential rains, landslides, and a volcanic eruption. We, the Disaster Reduction and Human Renovation Institution (DRI), have derived lessons from these disasters, and have been studying how to reflect these lessons in the management systems

of national and local governments. Furthermore, we have also been working on incorporating these outcomes into the training programs. Otherwise, we cannot provide programs that fulfill the demands of the times. Regarding developing countries, each of them has a different situation and the same approach cannot be implemented. However, the most important point is that each country needs to have a solid system to improve their capacity for disaster risk reduction. Each country needs to work on developing its own research system to start capacity development for disaster risk reduction. To achieve this, I believe, support from JICA is required.

- **Saito** Could you comment on the report regarding the Bursa Disaster Training Center?
- Kawata JICA has experience in implementing various programs in Turkey and Indonesia. Since the earthquake occurred in the Marmara region in 1999, I have visited Turkey four times to conduct field research. I know that the crisis management system of the Turkish government has been improving through cooperation activities of JICA. Thanks to the foundation established through past cooperation activities, they have not merely completed the building of the Bursa Disaster Training Center. They have also been focusing on the next step, which is how to utilize the facility.
- **Saito** Mr. Takeya, a senior advisor from JICA, has been involved in the project for disaster risk reduction in Turkey. What are the current challenges ?
- **Takeya** The current focus is to expand the framework of disaster training center like the one being established in Bursa Province to other regions of Turkey, and to enhance a training program based on a disaster training center.
- **Saito** The term "BOKOMI (Kobe City Disaster-safe Welfare Community)" originated in Kobe, and has become globally common in the field of disaster risk reduction.
- **Okada** We are still in the process of trying to make it a common global term. With cooperation from JICA, we provide guidance regarding BOKOMI in JICA's training program, based on the lessons we learned from the Great Hanshin-Awaji Earthquake.

However, as Dr. Kawata mentioned, the situation in each country is different. Therefore, we focus on telling JICA participants that we need a communitybased response when any disaster occurs, not just an earthquake. Twenty years ago, when the earthquake struck us, the Kobe City Fire Bureau could not bring fires under control and rescue people. A higher number of people were rescued by members of their local community than by the fire bureau. Based on this fact, in the training program, we highlight the importance of disaster risk reduction led by the local community.

**Saito** What is the biggest current challenge in terms of developing the community's capability for disaster risk reduction?



- **Okada** Speaking of Kobe, one of the major problems is the level of involvement of community residents in activities. The board members assuming core roles in the activities are the ones from local communities who worked with us 20 years ago when the earthquake occurred. The current challenge in developing voluntary organizations for disaster risk reduction in Kobe is to produce the next generation of members and leaders.
- **Saito** What do we need to focus on when introducing the idea of community based voluntary organizations for disaster risk reduction in other countries?
- Kawata Introducing disaster risk reduction led by the community is not only an issue faced by developing countries. In America, after 9/11 in 2001, the Federal Response Plan was changed to the National Response

Plan. It means that the nation itself was recognized as a community when considering disaster risk reduction. In both developing and developed countries, we need to work on improving the community's capability for disaster risk reduction at various levels. During this process, we cannot develop and implement new systems by ignoring each country's culture.

- Saito Mr. Boris is from Chile, and one of the exparticipants of JICA. Based on your experience, do you have any comments regarding the Japanese government or JICA?
- **Boris** We have implemented new disaster risk reduction measures, and the legislation of these measures is progressing. However, budgets and laws have not yet been prepared at sufficient levels. When thinking about disaster risk reduction, there are many important aspects, including technology and infrastructure. However, as I learned in the BOKOMI program, I believe that personnel development, which increases people's awareness of disaster risk reduction, is the most important aspect.
- **Saito** What is JICA's view on personnel development?
- **Fuwa** A good point of technical cooperation of Japan can be described to work and think together with people of the recipient country. It is deemed to be the most important thing that people of the recipient country should think solutions by themselves based on the facts and observations at the reconstruction sites in Kobe and Tohoku, Japan. In my observation, solutions for reconstruction and DRR varies according to type of disaster and culture of the country.
- **Saito** The Hyogo Institute for Traumatic Stress is the first permanent facility for traumatic stress research in Japan. Dr. Kato, could you tell us about the efforts you are focusing on at the center, while taking disaster risk reduction activities in the world into consideration.
- **Kato** Psychological support is intangible, and this makes it difficult for people to understand the importance of it. It is well known that Japanese rescue teams provided support when the Great Sichuan Earthquake occurred. However, later on, when we offered psychological support, no government organizations in China showed

#### Panel Discussion



any interest. When we began our projects, we ran into many obstacles. Whenever we faced difficulties while trying to provide support, we focused on not being too intrusive. Since the support we provide is based on our experiences in the Great Hanshin-Awaji Earthquake, it is impossible to provide other countries with the same level of support. To the organizations in China, we explained what we could not do and what we should have done when the Great Hanshin-Awaji Earthquake occurred, and then we suggested to them that we both learn from our experiences. Following this, we were finally able to collaborate with the All China Women's Federation. In Japan, various government organizations seem to have an interest in psychological support; however, the efforts to provide and expand this support is not receiving much attention. In China, since the government has stronger power, they worked on providing psychological support much more systematically compared with the Japanese government, once they decided to implement measures.

- **Saito** Regarding materials for training program, I think they would be a useful tool if we could compile a collection of unsuccessful cases and create materials that prompt people to think about what should be done to avoid repeating the same mistakes.
- Kawata After the Great Hanshin-Awaji Earthquake, the Hyogo Earthquake Memorial 21st Century Research Institute conducted interviews with approximately 200 people. In the interviews, the following three questions were asked: What must we do, what should we be careful of, and what must we not do when the next disaster happens? Due to the regulations on protecting personal information, we cannot disclose the answers for 30 years. However, DRI will gradually release these answers with video clips. If we hide our failures and talk about successes, we cannot learn anything. It is important to gather each country's experiences and lessons, and make an effort to reflect them in the training programs.
- **Saito** Since the Great Hanshin-Awaji Earthquake, at the 5th, 10th, and 20th year anniversaries, both

the government and the people who suffered from the earthquake have reviewed what they had been working on and have publicized the results, and we have obtained a lot assets through this approach. Ms. Kiyohara, what do you think about this point?



**Kiyohara** Firstly, regarding the reconstruction after the Great Hanshin-Awaji Earthquake, we focused on a learning session project that the local people could plan and conduct by themselves. When the government offices conducted consultations, they received comments from the local people that the language used by the government officials was difficult to understand, and the government staff is divided into sections so that they could not provide any overall feedback or advice. Sometimes, regional groups and NPOs could not work well together and this resulted in conflicts when implementing new projects. The local people tackled these issues themselves, and expanded their capability by conducting their own projects. Six months after the earthquake, the Hyogo prefectural government put out a call for the learning session project, and appointed 180 applicants as leaders of this project (Phoenix Promoters). The government provided these leaders with the necessary equipment, including FAX machines, computers, and a notice board, for free, and also offered 460,000 yen per year for activity costs. The key concept of this project was that community people could decide what they wanted to learn by themselves, since each area was at a different stage of reconstruction and had different needs. This project continued for 10 years by changing its structure, and the leaders have taken major roles in the reconstruction process.

Secondly, we focused on providing opportunities for the local people to demonstrate what they acquired in the learning session project. For example, we encouraged the local people to attend the meetings of the town development association. We created opportunities for elderly people to tell children what the town used to be like before the earthquake. We also conducted bazaars in several areas to sell handmade products that elderly women from the affected areas made. We realized the importance of establishing a system where the local community can be involved in the reconstruction process by using their abilities, and also where they can find motivation in their lives and build relationships with people.

Thirdly, we worked on establishing a systematic structure for learning. People who are involved in the reconstruction process need a place to gather with their fellows and recharge, when they face difficulties and become exhausted, just like a sailor has a port to come back to. By collaborating with an NPO, we established the "NPO University", which provides a full-scale learning opportunity regarding disaster risk reduction, including lectures, on-site training, workshops, and seminars. Since we provide long-term lectures, students can build close relationships among themselves. Through this project, more than 1,000 students have graduated and started working in the field.

Finally, when a major disaster occurs, it becomes very hard to see the entire picture of the reconstruction plan and implement appropriate support projects. To prevent people involved in the projects from becoming deflated by the lack of clear prospects, we needed to create a framework that enables the private sector and the government to collaborate. It was essential that they constantly shared information about the current situation and clarified any issue, and then determined practical measures to resolve these issues. For example, through the Hyogo Forum for Advocating Individual Recovery, professionals and government staff members visited the affected areas together a total of 251 times, and held a series of discussions with disaster victims and supporting organizations. A total of 60 organizations, including community groups, NPOs, and local governments, collaborated through a network called Seikatsu Fukko Kenmin Netto, which was established for restoring everyday life in the affected areas. Various projects were implemented based on this network, in accordance with the progress of reconstruction, such as a project to help people move and a project to create a community map. A framework in which the private sector and the government can discuss matters on equal terms has become a key element in the reconstruction process.

- **Saito** Dr. Iokibe, based on the discussion we have had so far, could we have comments from you before your closing summary?
- lokibe Although symposiums can sometimes be preoccupied with a discussion of philosophies, today, we were able to learn from actual cases presented by each country. This is significantly important for us. Based on the humility of the Japanese people, we also

discussed the importance of sharing not only successful experiences but also examples of unsuccessful ones, so that each country can reflect upon them to improve its own measures. I strongly believe that this symposium has provided us, those who are involved in disaster risk reduction, a significant opportunity to cooperate with JICA and expand our efforts while understanding realities.

- Saito Dr. Murosaki is here today. Dr. Murosaki is a professional in the field of disaster risk reduction. Dr. Murosaki, could we have your comments?
- Murosaki It is very important to continue evolving what we have experienced and learned. We cannot say that everything we experienced from the Great Hanshin-Awaji Earthquake was useful during and after the Great East Japan Earthquake. Similarly, it is still arguable if our experience in Japan can provide true value overseas. As Mr. Nagata, the chairman of Plus Arts (an incorporated non-profit organization), has been working on, it is important that each country creates its own methods by using examples from Japan, and also it is equally important that Japan openly learns from other countries. It would be greatly appreciated if JICA takes the lead in gathering each country's experiences and makes them available as shared assets among all humankind.
- Kawata Especially when developed countries support developing countries with disaster risk reduction activities, we usually start by implementing measures that have a high success rate. In 1991, approximately 3,000 people lost their lives as a result of a tsunami in Flores Island, Indonesia. In 1998, also approximately 3,000 people were killed by a tsunami in Papua New Guinea. Rural areas were damaged, not big cities. In Papua New Guinea, people did not know what caused the tsunami. They feared that Jesus was angry with them and ran into the mountains. When I visited Papua New Guinea as the leader of a government research group, the local commander asked me to explain the mechanisms of a tsunami to the local people after conducting my research. I conducted a three-hour-



long lecture and explained how tsunamis occur to approximately 300 people. We all must be aware that disaster risk reduction and disaster mitigation can only be achieved by continuously conducting various activities throughout the world.

- **Fuwa** I think it is very important to be able to think by yourself alternatives of solutions based on the lessons learned. It is another problem that assistance by international society tends to rush immediately after the disaster, but it can't continue for necessary period.
- **Okada** Our organization is not allowed to make any mistakes. However, we, the fire bureau, faced a series of failures after the Great Hanshin-Awaji Earthquake. For example, we could not extinguish fires, since we could not secure water from fire hydrant (water pipes), fire prevention water tanks, rivers, and small streams. At that time, a support system across the country had not been established yet, and we could not easily receive supporting fire engines from outside of Kobe City. Based on these lessons, Emergency Fire Response Teams have been formed at the national level, and also related laws have been established. When the Great East Japan Earthquake happened, this system worked efficiently, and the Kobe City Fire Bureau also sent a number of staff members to Tohoku for support. It is important to reveal failures and build a new structure out of them.
- **Saito** The Hyogo Institute for Traumatic Stress has led the way in a new field. Could you tell us the difficulties you have faced?
- Kato In the first five years after the Great Hanshin-Awaji Earthquake, we were conducting activities at the grassroots level. Then, in 2004, the Hyogo Institute for Traumatic Stress was established to continue and expand these activities. When we opened the institute, we were not sure if we could maintain the organization by only sharing the experience and knowledge we learned from the Great Hanshin-Awaji Earthquake. However, since then, a series of disasters and accidents

have occurred both in Japan and overseas, including the Mid-Niigata Prefecture Earthquake, the tsunami that affected Sumatra, and the JR Fukuchiyama Line derailment accident. While being involved in various support projects for these disasters and accidents, we spent a few tumultuous years, and have finally started to get people to recognize the importance of psychological care. On the other hand, we learned that many firefighters suffered from guilt, since they could not extinguish fires and rescue people affected by the Great Hanshin-Awaji Earthquake. Therefore, we have also started to provide psychological care for people engaged in rescue activities. The government staff members involved in reconstruction projects were also psychologically hurt due to criticism they received from local residents. It is also important to prepare measures for people who serve at the scene of a disaster, while understanding what they suffer from.

**Saito** Now, we will take questions from audience in the venue.

- **A participant** Could you tell us what kind of strategy each organization has prepared for a nuclear power plant accident and toxic contamination?
- Kawata The United Nations World Conference on Disaster Risk Reduction will take place in Sendai this March. The Japanese government has been proactively working on measures for a number of possible disasters, including the events mentioned in the question. For example, if a Tokyo metropolitan earthquake or Nankai megathrust earthquake occurs during the daytime, traffic congestion would get in the way of firefighting and rescue activities. Soon, water would be cut off. To respond to these expected situations, the government has been taking the lead in structuring systems by cooperating with local governments, police departments, fire departments, and the Self-defense Force. Now, Japan is in an era with a high possibility of disasters striking and our population is aging at a steady pace.



Since we are facing a lot of new challenges, we would have difficulty in responding to even a medium-scale disaster under the current systems. The government and we, those who are involved in disaster risk reduction, understand that we must continue making an effort to find solutions for the changing circumstances and that we must never leave these tasks aside.

- JICA Training Participant (Chile) In Chile, half of the country is classified as a risk area. Many cities have a possibility of being damaged by a tsunami, or have been damaged in the past. Could you tell us about JICA's efforts regarding urban disaster risk reduction?
- **Fuwa** At JICA, as a project combining scientific technology and technical cooperation, we are conducting research on a disaster-resistant city and introducing our new findings. We also provide urban areas with cooperation in establishing land-use plans to make each city highly resistant to disasters before they occur.
- Kawata Chile was affected by a major earthquake and tsunami in 2010. JICA has been conducting a cooperative project in Chile, and faculty members of Japanese universities have joined this project. Since the Great East Japan Earthquake occurred in Tohoku in 2011, the local government has taken the lead and has been working on the reconstruction of stricken areas and establishment of a tsunami warning system. University researchers are involved in these efforts, and now most of the faculty members of these universities agree that we should evacuate any building, regardless of its structure, when a tsunami warning is issued. The training contents in Chile are not completely different from those conducted in Japan, and the key philosophy and approaches are maintained in the training program. It is very difficult to make the same disaster risk reduction system work in an area with a totally different culture. We should utilize the time lag that has passed between the two events, as we are doing in Chile and Tohoku.
- Saito Mr. Nagata, from Plus Arts, what is the difficulty of communicating messages to the local people?
- **Nagata** The key is to find out what the local people want the most. If we can have a reliable partner in local areas, that is also important. Regarding international cooperation, there is a theory called "Wind (Professionals), Water (Intermediate support organizations), and Soil (Local people)." We (Wind) bring "Seeds (Projects)" to the areas requiring support. Then, people in these areas (Soil) localize the projects. For example, one of our projects is called *Iza* (Let's)! Kaeru (Frog) Caravan! When the local people implement this project, they can change the symbol of this project from a frog to anything, such as a fawn or monkey. Or, they can modify the whole project. The most important thing is the philosophy that we should learn while

having fun. The "Seeds" cannot grow, if we do not have anyone to "Water" them. We need support from organizations (Water) until the projects take root in these areas. JICA takes the role of "Wind". However, its locally based staff can be "Water." Through our support activities, we always hope to learn together and to build better support structures together.



**Saito** At last, could we have a short comment from each panelist?

**Okada** It has been eight years since the Kobe City Fire Bureau started providing JICA training program. From the beginning, what concerned us the most was the difference in cultures. Although we conduct training program based on the Japanese community, the concept of community varies according to the region or country. Therefore, we focus on communicating the message that the connection among people in the neighborhood is important. We do not want to take an aggressive method. We would like each country to understand this message as the basic concept of community, and adopt it in a way that works for them.



**Kawata** The important thing is to repeat activities. At DRI, we have a network of 6,000 staff members in charge of disaster risk reduction belonging to local governments. Once a disaster occurs, these staff members will start providing support without receiving a request to do so from the local government of the affected area. Since there is always someone from the local government who has undertaken DRI's training in an affected area, the cooperation should work smoothly. However, in developing countries, there is no opportunity for them to retake the training in Japan after returning to their homeland, and the acquired knowledge and skills will fade. To avoid this, I would like JICA to make the best use of the global network that JICA have built up.

- Kato Psychological care is required not only at the time of a disaster, but also for everyday issues. For example, victims of crime and violence require psychological care. In particular, domestic violence and child abuse can be hidden in our society. Developing countries are probably also facing these problems. We need to contribute to societies by increasing the recognition of these problems and establishing systems to prevent them. Also, communicating the importance of psychological care is also crucial. After the Great Hanshin-Awaji Earthquake, we conducted a learning program at elementary schools in Kobe to make children aware of the value of life. If we teach children about people's emotional wounds, bullying and violence could be stopped. I would like to highlight the significance of integrating topics related to psychological care into education.
- **Kivohara** First of all, although it is important to pass on our experiences by using documents and films, it is also important to create opportunities so that people who experience a disaster can tell their stories directly to the next generation face-to-face. To achieve this, we need to continue to support activities in areas where people know each other and are connected by a strong relationship. The term "network" is often mentioned in the field of disaster risk reduction. The basis of a network relies on the relationships and trust among individuals. The network in and among organizations works properly only when solid relationships among individuals exist. Secondly, it is very important to support affected people to build up their strength and expand their connections for recovery, rather than conducting reconstruction activities on behalf of them. This can be said not only for international cooperation. but also for the relationship between the providing and receiving side of support here in Japan. Finally, it is important to diversify the training programs. Of course, we need to diversify the training period, topics, and methods. However, we also need to diversify the training participants. We need to include women, children, elderly people, and disabled people on the premise that everyone can take the lead in disaster risk reduction, disaster mitigation, and reconstruction activities. Especially regarding the involvement of women, we

would like organizations, including JICA, to encourage women to participate in learning and training programs, and also to be involved in decision making.

- Fuwa Through JICA training program based on the experiences of the Great Hanshin-Awaji Earthquake, there are now so many people with valuable knowledge and skills in developing countries. When a major earthquake struck Turkey, we provided temporary houses from Kobe. We faced various problems, just like we did after the earthquake in Kobe. We solved these issues one by one, by holding discussions with people from both Kobe and Turkey, while visiting the affected areas. This process itself was a lesson for us. I would like to share this experience among the members of JICA and keep it as one of our assets. Long-term support is also important. The effort to encourage more women to be involved in disaster risk reduction projects will be included in a post-Hyogo Framework for Action (a post-2015 framework for disaster risk reduction). We are going to focus on including this concept in JICA's training programs.
- **Saito** When a nation, organizations, and residents face a disaster, the awareness of disaster risk reduction among them increases, and they become very strong when faced with disasters. However, it is too late to prepare ourselves for disasters after experiencing a disaster. We need to maintain our interest in disaster risk reduction, and be prepared for disasters which may occur in the future. In terms of international cooperation, providing personnel and knowledge will be significantly important, aside from offering financial and material support.

In that sense, when JICA collaborates with regions where they have knowledge but do not have methods for international cooperation, much more effective international cooperation will be achieved. We strongly hope that Hyogo will become a focal point of JICA's disaster risk reduction training program and its role will continue expanding. With this hope, we would like to close this panel discussion. Thank you very much for joining us today.



# **Closing Address**

President, Hyogo Earthquake Memorial 21st Century Research Institute
Dr. Makoto lokibe

Today, we had a long, intense and meaningful discussion. Through the case studies, we learned that initial small-scale efforts have expanded into large-scale projects and reached numerous countries. International standards have been established by the United Nations, and various projects, which have been inspired by specific experiences in Japan, have been conducted by organizations including the Japan International Cooperation Agency (JICA). These efforts and projects have encouraged the current trends in international cooperation, and these efforts and projects have now taken root in each society and country.

In today's symposium, many people, including JICA's president Dr. Akihiko Tanaka, focused on "Mainstreaming Disaster Risk Reduction." JICA has primarily been tackling the economic development of deprived areas. However, many organizations have focused on the importance of disaster risk reduction, and people's awareness of it has been increasing rapidly.

Today, the phrase "Build Back Better" has been mentioned many times. The creative reconstruction of Hyogo, which was proposed and implemented by Mr. Toshitami Kaihara, the former governor of Hyogo, was more innovative than the idea of "Build Back Better". His concept focused on enriching people's lives and cultivating their minds, and did not stay within the framework of disaster risk reduction. He created something completely new, for example the world-class think tank for disaster risk reduction in HAT (Happy Active Town) Kobe, the Awaji Yumebutai (a complex featuring conference center, hotel and amusement facilities), the Hyogo Performing Arts Center in Nishinomiya City, and the advanced medical research center on Port Island. In other words, when cities were severely damaged by the earthquake and people were suffering from so much loss, he aimed to achieve development that was far more than just recovery, by taking the opportunity to build wonderful and ideal communities. In today's symposium, the same philosophy and approach was discussed. Each community needs to find its own ideal model to aim for, and cooperate with the government, private sector and the local residents, at multiple levels. The community also needs to transform itself to adapt to different cultures, without losing its



defining qualities.

A popular approach of support groups is to explain their failures and try to learn from them together. rather than to give lectures. However, because of the character of Japanese people, we tend not to elaborate either our successes or failures. To share the lessons that we Japanese learned with the world, it is important to highlight both our successes and failures and make an effort to share them universally. In that sense, Dr. Tanaka's discussion was significant. He explained the importance of disaster risk reduction in general from a perspective of "human security", which is a universal concept. The stories of people in Kobe who experienced the Great Hanshin-Awaji Earthquake must be heard and shared globally. At today's symposium, we reconfirmed that we need to cooperate with JICA's wide range of international activities and continue our efforts by sharing our knowledge with other countries and regions.

It takes a great deal of intellectual effort to be prepared for disasters that might happen in the future. The required level of disaster-prevention measures for possible major disasters, including the earthquake occurring in Nankai trough and directly beneath the Tokyo metropolitan area, is extremely difficult to achieve and current efforts are not yet sufficient. For example, the Japanese government's overly hierarchical administrative structure could be seen as an obstacle to solving major problems when a disaster occurs. The establishment of a new organization, for example a national disaster management agency, should be considered. We need to consider developing a framework that enables us to work on major issues as a nation, but at the same time, maintains a decentralized system for responding appropriately to every aspect of a disaster.

Finally, it has been 20 years since the Great Hanshin-Awaji Earthquake. Today, we reaffirmed our determination to continue expanding our already significant efforts by cooperating with a variety of projects all over Japan and the rest of the world. I would like to bring my speech to a close by expressing my appreciation to the many wonderful speakers and all the people who participated in this event with great enthusiasm. Thank you.