



阪神・淡路大震災20年事業・超巨大災害対策総合シンポジウム
The Great Hanshin-Awaji Earthquake 20th Anniversary Event; Symposium on Catastrophic Disasters

国際防災・人道支援 フォーラム2015

International Disaster Reduction Forum (DRA Forum 2015)

テーマ

兵庫行動枠組 (HFA) 10年の成果と2015年以降の防災枠組に向けて
～レジリエントな社会を目指す取り組みの軌跡と展望～

10-year Achievement of the Hyogo Framework for Action and its Successor Framework
- Global Progress and Prospect towards Disaster Resilient Society -

Summary Report



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Disaster Reduction and Human Renovation Institution (DRH), Hyogo Pref., Asian Disaster Reduction Center (ADRC), JICA Kansai, International Recovery Platform (IRP), UNISDR Office in Japan, WHO Kobe Centre, Hyogo Earthquake Memorial 21st Century Research Institute (Hem21), Disaster Reduction Alliance (DRA)

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International Disaster Reduction Forum (DRA Forum 2015)

The Great Hanshin-Awaji Earthquake 20th Anniversary Event,
Symposium on Catastrophic Disasters

Summary Report

The year 2015 marks 20 years since the Great Hanshin-Awaji Earthquake, as well as the 10th anniversary of Hyogo Framework for Action (HFA). As an act of remembrance for the Earthquake and in celebration of the anniversary of the HFA, which was adopted 10 years ago at the 2nd UN World Conference on Disaster Reduction held in Hyogo, Hyogo Prefecture and Disaster Reduction Alliance (DRA) hosted the “International Disaster Reduction Forum (DRA Forum 2015)”. Executive Officers from the United Nations were invited to attend the opening of “Catastrophic Disaster Synthesis Symposium”. The event shared the progress of the HFA, efforts of DRA member organizations, and expectations towards the Post 2015 Framework for Disaster Risk Reduction (DRR).



■ Special Lecture · Trialogue talk

Margareta Wahlström

UN Secretary-General's Special Representative for Disaster Risk Reduction and Head of UNISDR

Born in Sweden. Served as Field Officer at the UN High Commissioner for Refugees (UNHCR) from 1981 to 1983. Held the positions of Under-Secretary-General for the Disaster Response and Operations Coordination Division at the International Federation of Red Cross and Red Crescent Societies from 1995 to 2000; Deputy Special Representative of the Secretary-General at the UN Assistance Mission in Afghanistan (UNAMA) from 2002 to 2004. Served as Deputy Emergency Relief Coordinator and Assistant Secretary-General at the UN Office for the Coordination of Humanitarian Affairs (OCHA) from 2004 to 2008. Worked as Special Coordinator of the UN Secretary-General for Humanitarian Assistance to Tsunami-Affected Communities in the aftermath of the Indian Ocean tsunami disaster. Has been UN Special Representative of the Secretary-General for Disaster Risk Reduction as head of the UN International Strategy for Disaster Reduction (UNISDR) since November 2008.



■ Status Reports

Alex Ross / Director, WHO Kobe Centre (WKC)

Mr. Alex Ross is the Director of the WHO Centre for Health Development in Kobe, Japan. He is a public health policy expert trained at the University of California in Los Angeles (UCLA) with specializations in health systems. Prior to his joining the Centre, he served as Director for Partnerships at WHO Headquarters (Geneva), as well as in senior advisory posts to Assistant Director-Generals for Communicable Diseases and for HIV/AIDS, TB and Malaria. Mr Ross led development of WHO's partnerships policy, nurtured WHO's engagement with global health initiatives, UN agencies, non-governmental organizations and the private sector. Mr Ross was very involved in developing innovative health financing approaches, such as the Solidarity Tobacco Contribution, as well as the creation of the Global Fund to Fight AIDS, TB and Malaria and UNTAID.



Kiyoshi Natori / Executive Director, Asian Disaster Reduction Center (ADRC)

Graduated from Tokyo University Faculty of Engineering in 1982. After earned Master of Engineering in City Planning at Tokyo University Graduate School, he started to work at National Land Agency. Having served as Associate Professor, School of Engineering at Nagoya University, Director for Planning at Ministry of Land, Infrastructure, Transport and Tourism, and Director for Disaster Preparedness and International Cooperation at Cabinet Office, he is in current position since January 2012.



Hiroshi Kato / Director, Hyogo Institute for Traumatic Stress

Born in 1959. Graduated from Kobe University, Faculty of Medicine. Psychiatrist. Doctor of Medicine. He worked at psychiatric emergency of public hospital in Tokyo until 1995. After the earthquake, he worked at Disaster Victim Assistance Program which was newly created public institution in order to address mental health issues of survivors until March 2000. From April 2000, he belonged to Hyogo's think tank Traumatic Stress Research Center which was established as an extension of the activities and he had been doing research and proposing policies on mental health. The research center was expanded its activities as Hyogo Institute for Traumatic Stress since April 2004 and he has engaged in clinical studies and research regarding traumatic stress and PTSD.



Shingo Kochi / Senior Recovery Expert, International Recovery Platform (IRP)

He has been bringing with him over 10 years of experience, as Hyogo Prefecture Government official, in the field of disaster reconstruction and recovery across the globe. He is concurrently serving as Senior Recovery Expert at the International Recovery Platform (IRP), where he coordinates multiple joint projects including the World Bank's "Learning from Mega-disasters", Development Bank of Japan's "Tohoku Alliance" and ADRC's "Recovery Support after the Philippines' Super Typhoon Haiyan". His earlier posts include Deputy Director of International Cooperation for Disaster Management, Cabinet Office of Japan. He has been engaged in post-disaster and development work dealing with multilateral, bilateral and international partnerships both at field and headquarters level.



■ Trialogue talk

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.



Yoshiaki Kawata

Executive Director, Disaster Reduction and Human Renovation Institution(DRI)

Director and Professor, Research Center for Safety Science, Kansai University

Born in Osaka. He completed doctor's course at the Graduate School of Engineering, Kyoto University and gained a PhD in Engineering in 1974. 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.



■ Summary・Closing

Makoto Iokibe

President, Hyogo Earthquake Memorial 21st Century Research Institute

Chairperson, the Disaster Reduction Alliance (DRA)

Born in Hyogo. He was President of the National Defense Academy in 2006-12, and has been a Visiting Professor at Harvard University and the Institute of Social Science at University of Tokyo, and has also taught at the Graduate School of Faculty of Law of Kobe University, and the Faculty of Law, Political Science and Economics of Hiroshima University. He received his B.A. (1967), M.A. (1969), and LL.D. (1987) from Kyoto University. He served as Chair of the Reconstruction Design Council in response to the Great East Japan Earthquake from April 2011. His major publications include Nichibei Kankeishi (A history of Japanese-American relations: from Perry to the present; 2008) and Nichibei Senso to Sengo Nihon (The Japan-U.S. war and the postwar; 2005).



Program

14:00-14:10	Opening Greeting	
14:10-14:40	Special Lecture	<p>“Progress of the Hyogo Framework for Action and its Successor Framework: Towards the Third UN World Conference on Disaster Risk Reduction”</p> <p>Margareta Wahlström, UN Secretary-General's Special Representative for Disaster Risk Reduction and Head of UNISDR</p>
14:40-15:40	Status Reports	<p>Efforts for the progress of the HFA by each DRA member organizations</p> <p>Alex Ross, Director, WHO Kobe Centre (WKC)</p> <p>Kiyoshi Natori, Executive Director, Asian Disaster Reduction Center (ADRC)</p> <p>Hiroshi Kato, Director, Hyogo Institute for Traumatic Stress</p> <p>Shingo Kochi, Senior Recovery Expert, International Recovery Platform (IRP)</p>
15:40-16:00	Break	
16:00-17:15	Triologue talk	<p>“Towards Disaster Resilient Society”</p> <p>Margareta Wahlström, UN Secretary-General's Special Representative for Disaster Risk Reduction and Head of UNISDR</p> <p>Akihiko Tanaka, President, Japan International Cooperation Agency (JICA)</p> <p>Yoshiaki Kawata, Executive Director, Disaster Reduction and Human Renovation Institution</p>
17:15-17:30	Summary · Closing	<p>Makoto Iokibe, President, Hyogo Earthquake Memorial 21st Century Research Institute; Chairperson, the Disaster Reduction Alliance (DRA)</p>

Tomoyuki Yoshimoto, Vice Governor of Hyogo Prefecture

First of all, I would like to thank you all for taking part in today's DRA Forum 2015. So many participants gathered here from Japan and abroad, including Ms Margareta Wahlström, Special Representative of the UN Secretary-General for DRR. I would like to express my gratitude and welcome you for coming. Also, I would like to thank all the people who had contributed to the successful opening of this event.

This year marks 20 years after the Great Hanshin-Awaji Earthquake, and I would like to pray once again for those who lost their lives in the disaster. It was an unprecedented disaster that occurred in the urban area when the status of the society was transforming from growth to maturity. I would also like to reiterate my deepest gratitude for the support provided by people both at home and abroad, and express my respect to the bereaved families and victims who have made every effort to rebuild their lives.

We have made concerted efforts to solve the issues that appeared at each stage of recovery and reconstruction in order to achieve "creative reconstruction" (Build Back Better than Before) towards 21st century, with the participation and cooperation of Hyogo citizens. During the process, we established reconstruction models reflecting the conditions of affected areas, such as monitoring systems for elderly people, providing mental health care, supporting voluntary activities, and establishing Reconstruction Foundation, the Support System for Reconstructing Livelihoods of Disaster Victims, and the Mutual Aid System for Housing Reconstruction. These models are well utilized in disaster recovery process after the Great East Japan Earthquake, as well as in other disaster-stricken areas within Japan and abroad.

On the other hand, as the time goes by, the memories of the earthquake are fading away even in the affected areas. Meanwhile, several natural disasters occurred throughout Japan last year, including torrential rains that left tremendous damage in the cities of Tamba and Hiroshima in August. Furthermore, we are concerned about the occurrence of Nankai Trough megaquake in the future.

We must continue to develop disaster risk reduction (DRR) measures together with the combination of self-help, mutual help and public help. These include earthquake measures such as seismic retrofitting, tsunami measures such as reinforcement of coastal levees, conducting practical disaster drills involving community members, and the promotion of soil and water conservation. It is time for us to realize resilient society that protects our lives and minimize disaster damage.

In return for having received a great amount of support from both Japan and abroad after the Great Hanshin-Awaji Earthquake, Hyogo Prefecture has been promoting international cooperation in DRR. In the Kobe New Eastern City Center, known as HAT Kobe, a cluster of DRR related organizations is formed namely UN Office for Disaster Risk Reduction (UNISDR) Hyogo Office, UN Office for Coordination of Humanitarian Affairs (UN OCHA) Kobe Office, Asian Disaster Reduction Center (ADRC), International Recovery

Platform (IRP), and JICA Kansai. As a whole, the area serves as a major hub to help mitigate disaster risks both in Japan and abroad. In 2002, Disaster Reduction Alliance (DRA) was established in order to conduct concrete research and study, and promote collaborative projects. DRA has been actively undertaking various tasks ever since.

In 2005, on the 10th anniversary of the Great Hanshin-Awaji Earthquake, the Second UN World Conference on Disaster Reduction was held here in Kobe City, Hyogo Prefecture. The Hyogo Framework for Action (HFA) was adopted at the Conference as a global DRR guideline for nations and international organizations around the world. This March, Sendai City, Miyagi Prefecture will be the venue for the Third UN World Conference on Disaster Risk Reduction, where a successive framework of HFA will be discussed. Hyogo is willing to present specific proposals there, based on the experience and lessons learned from the 20 years after the Great Hanshin-Awaji Earthquake.

In today's forum, discussions will be made on; the role of HFA in global DRR, initiatives taken by related organizations, expectations for the post-HFA framework as well as proposals to promote new framework.

It is my strong hope that this forum will be utilized as a platform to share the latest knowledge, and the results of the forum will be widely disseminated all over the world.

Last but not least, I wish for the success of today's forum, and wish you the best of health and prosperity for the future.



“Progress of the Hyogo Framework for Action and its Successor Framework: Towards the Third UN World Conference on Disaster Risk Reduction”

Margareta Wahlström, UN Secretary-General's Special Representative for Disaster Risk Reduction and Head of UNISDR

It's a pleasure to be back in Kobe. The purpose of my talk today will be on the way forward and with the view to the Third World Conference that is just on the preparation, and what we hope to achieve with that and what the coming decades will be for us.

Just to give everyone a chance to remember for how long the work has been going on regarding disaster risk reduction, I'll do a quick backwards review and then we will talk about the World Conference.

Probably the only thing that is important to mention here still is that disaster trends today everywhere in the world unfortunately are largely negative. The impact of disasters keeps increasing, particularly in the impact on people, which is not necessarily the hazard issue. It is the fact that people concentration and wealth and capital, but also concentration of poverty, increases everywhere in the world. There are more of us and we have more to lose, and as you know, regrettable figures show that inequality is increasing everywhere in the world globally speaking and of course that means that inequality is increasing de facto in many places. And this means that more poor people are in the focus of the storms, earthquakes, landslides, and other natural hazards. What we've learned over the past decade is of course that managing disaster risk and reducing disaster risks is totally, absolutely, multi and cross-sectorial, and none of us on our own can hope to achieve the sustainability and really impact resilience.

UNISDR was created as a result of the end of the 90s, the International Decade for Natural Disaster Reduction, came to an end, and I think member states and countries in the UN they said, we probably need to do something slightly different from the decade, so they established the office, the UNISDR. And what they asked the office to do was to advocate, and reach out, and create more evidence and make sure that knowledge is shared. Then UNISDR also tried to pull together a sense of what is the global knowledge and they came out with a compilation and tried to bring an answer together, which was a publication called *Living with Risk*, from 2004 it was finally printed completely. In 2004, we also started the preparation for the second World Conference which took place here in January, 2005. Between the preparations and the

World Conference, the Indian Ocean Tsunami happened, and I think most of you would agree with me that that tsunami changed a lot about everything, everyone's thinking about disasters.

Disaster risk reduction has always been defined as contributing to sustainable development. That has been maybe the biggest challenge for all of you who work with disaster risk reduction – that this is of course about the disaster as an event. But it is much more about how you identify risk, plan for risk, and above all, plan to reduce risk and the impacts of disasters. UNISDR, as you know it today, was established in 1999 to drive this agenda. Today, as at that time, we have our Head Office in Geneva, Switzerland. We have regional offices in all the regional hubs where the UN congregates.

As I mentioned, coordination the big efforts, advocacy and campaigns, and information, evidence, etc., – that's been the name of everything that we've tried to do. During this decade since the Kobe Conference, the Regional and Global Platforms have developed very rapidly. We had a first round in 2007, two years after the Conference, and then every two years. I think it's fair to say that they have become larger, more substantive and more focused as each Platform has passed.

We do advocacy and campaigns. The early ones were on safe schools and hospitals. And recent one in the past four years is the resilient cities campaign which brings together local governments, local authorities, to work on their resilience.

We have information tools to bring the evidence forward and do also research together on risk. Every two years, the Global Assessment Report on Disaster Risk Reduction – we are now publishing the 2015 in just a couple of weeks before the World Conference. And all through this we looked at disasters and poverty, disasters and the public sector, and disasters and the private sector two years ago – so the 2015 one will be an effort to pull it all together and describe how risk has developed, how do we understand it better, and how our practices are developing in all sectors.

So the Global Assessment Report is the collaboration of institutions, organizations, UN, many government institutions. It will of course continue to contribute to evidence building globally, and most importantly personally,



I think has been the gathering of reports by governments on how they are doing on implementing the overall framework. That was one of the decisions in 2005 that governments wanted a way of measuring the progress. So the five priorities have been reported on every two years by governments around the world over this past decade, and as you can imagine it provides a very interesting base of information of how they think themselves they have been doing. As I said, the agenda has a long history. It goes back to IDNDR starting in 1989, but that was not really the start. We have found evidence of resolutions in the UN going back to 1971 saying that disasters are going to become a really serious issue, and we better start preparing now. That wasn't really done, but I think it's gradually picked up speed. In 2002, the Johannesburg Plan of Action, and the sustainable development agenda, had some very strong outcomes and HFA, the Hyogo Framework for Action, has become a very strong concept and a copyrighted concept around the world.

We haven't quite yet adopted seriously mainstreamed inter-development planning, but there is significant progress that is being made. So you can see here a quick overview over the last ten years from 2005, 2007, 2009, 2010, we did the mid-year review of the progress of HFA, and then the two Platforms in 2011 and 2013 accompanied by Global Assessment Reports every two years, and also the biennial reporting on HFA. The outcome of HFA you are familiar with it. In order to build the resilience of nations and communities, we would like to achieve a substantial reduction of disaster losses in lives and in the social economic and environmental assets of communities and states. To that, add three strategic goals, and I would say that the first goal is the most important one – the integration of disaster risk reduction into sustainable development policies and planning. Strengthening institutions – lots of progress. You will have to judge to what degree there has been a systematic incorporation of risk reduction into the implementation of emergency preparedness, response, and recovery program. You will remember the five priorities for action – governance, risk identification, knowledge, reducing the underlying risk factors – so the big development entry points. And of course strengthening the disaster preparedness

system for effective response.

Now in 2005, we didn't set any targets to it, so the discussion today of course is to what degree was this achieved globally? Not all of it necessarily at the speed and success and as well documented, but there is a mix of data and maybe more impressions of individual officers and countries. I've mentioned the reporting and the Global Assessment Report.

This is a look at how according to countries' self-assessment they have been doing on the various priorities. The most successful one, priority five, on strengthening preparedness for response, not surprisingly given not only the number of disasters and countries challenging, but also because that's where most countries started. The second success is priority one, on strengthening institutions. Priority two – risk identification and early warning. Typically, after the tsunami, there was an enormous focus on early warning systems. The third priority, knowledge and education – this is public awareness. It's education in schools, it's keeping memory of disasters alive and learning from them, developing from them, and research. Also, we are looking at how to bring the science community back into disaster risk reduction.

In the past years, I think we can see the understanding that disaster, climate, is very intimately linked and has raised new interests and benefited from it. Now, priority number four as you can see, is the least progress as reported by countries. And that is obviously the challenge of both mainstreaming risk into all sectors, to also see how you actually coordinate in a government when you do that and where do resources come from.

Since the last Global Platform, we were really in a stream and planning for the World Conference. It was very big, it was very focused, and every sector of society was involved. Persons living with disabilities, local authorities, parliamentarians, private sector, science, and academia, and all the social groups, and they were entirely focused on the opportunity of the world conference. It has been two years of intensive consultation, asking countries and organizations, what has your success been? Where have the bottlenecks and constraints been? And what do you really want to get out of the World Conference? So that's been our question, but ultimately as you know, we

give all the material from this to the new Hyogo Framework for Action, which is negotiated by governments. So right now in Geneva, we just concluded five days of discussions of the draft text, and we have not yet agreed.

When we go to the World Conference, we deal with everything from poor nations, who are the proportionally most effected by disasters, to how are all the rich nations who have also during this decade... if you just think about the wildfires in Australia, the flooding in Australia some years ago in Queensland and the Great East Japan Earthquake here. You remember the floods in Thailand not so many years ago. The Christchurch Earthquake. I think urban flooding is proportionally speaking the most expensive disaster today because of the cost to infrastructure. Remember New York and the Superstorm Sandy. Its infrastructure, its supply chains, its critical infrastructure, and its people who are not quite well prepared for what is in store.

That's why I always remember a few years when I was here for the previous commemoration. Governor Ido said that the worst disasters happen de facto when people have started to forget because it's such a long time ago that there was a big disaster. So this continues – education, training, remembering. It's so critically important for us individually but also as a collectivity to be well-prepared. Preparedness will always diminish, not necessarily physically but mentally as the years are going. But hopefully we've learned some basic practices that will keep us prepared. So the Third World Conference is about that preparedness. It's about bringing forward the lesson learned from the past ten years and really trying to tackle what are the challenges going ahead, and certainly one of the challenges is to keep that concrete understanding alive - that disasters will in all likelihood get worse because of the density of population, the increase of poverty comparatively speaking, and because of sort of the global spread of disasters. Now, the World Conference is a United Nations Conference, so it is a very formal affair. It will review progress, it will adopt a new framework, it will really look at modalities for cooperation and partnership, which is a high priority for the world overall. And it will determine modalities for periodic review of the implementation.

We report every year to the General Assembly, but this periodic review is an intention that it will become part of the United Nations review of the entire sustainable development progress, so it will go into the very formal review process which hopefully also will have many governments to put in place mechanisms that are critically important. There is a formal inter-governmental segment, and then it's the multi-stakeholders segment which is more like the global platform. And then there is a very, very big public forum which is for the public at large.

We expect around six to eight thousand accredited formal delegates, but of course for the public forum, this is a very important thing more for Japan and the rest of the world. I think you have to count on tens of thousands for that forum. But even the eight thousand coming to the intergovernmental event is a very, very large number of people that will have to be given space for but also have substantive opportunities for discussions. Now the Conference will be Green, Paper Smart, and of course disability accessible. What is the intergovernmental segment? In addition to the high level presentations, there will be ministerial roundtables and dialogues, and then the high-level multi-stakeholder partnerships. The high-level multi-stakeholder partnership dialogues on the other hand will be fairly massive events. A panel, and then four or five or eight hundred participants in the discussion. And then there are thirty-four working sessions. If you look at the themes of the roundtables, you can see where it seems to aim.

Governing disaster risk – again looking at the institutional challenges – international cooperation and global partnerships. There is a clear expectation that that needs to develop. And one of the main themes, that I think will also be one of the main outcomes of this Conference, would be that we have a much more structured international cooperation on the learning of reconstruction and recovery. The most challenging part of any disaster and the one that is in a way given least attention – it's a very domestic and national focus – but the learning in order to assist each other among governments and communities is quite underdeveloped. And then public investment – it's really about financial instruments and a lot

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has been learned and there is very significant progress in this area. The high level dialogues – again it's a public-private partnership and risk sensitive investments, and dedicate the discussion on mobilizing woman's leadership, and the participation. And then inclusive disaster risk management is really how society totally works together with communities and all the other groups that you are familiar with.

What will the outcome of the Conference be? The zero draft is now what is actually on the negotiation, but it's of course already changed, and there will be now a couple more days of negotiation. The aim is of course that it has to be ready well in advance of the Conference, so that we don't negotiate in Sendai, but we focus on the future. We are also looking at something important that is different from the Kobe conference to set some global targets to measure progress and to decide together what the targets should be. If you're looking at targets familiar to you, to reduce mortality, to reduce the economic losses, to reduce the number of affected people, as you can hear that's not so easy to define. So just the discussion about what is an affected person maybe makes that not such a simple goal to have. Reduce damage to critical facilities, in particular health and education. And then a positive target – to increase the number of countries with national and local disaster risk reduction strategies. And then another positive target is to focus on the international cooperation and global partnerships. How to measure international cooperation and global partnerships will require some clever thinking, but it's a positive thing to do, so I'm sure that will remain a high possibility.

I think what we hope really is to solidify a lot of the progress. But governments will convince each other of the absolute importance to think about the economics of disasters and the political risks of not dealing with disasters, and see this not as a standalone issue, but managing disaster risk and reducing risk is really a foundation for achieving sustainable development goals.

What I hope will happen in Sendai is that governments will talk with each other, inspire each other, as we are trying to bring some of the best national experiences to the table to make it an effective exchange of learning. The

Global Assessment Report that will be available shortly, is the beginning of an understanding of what the total cost of disasters globally speaking is and how they are developing, and in order to make it concrete, compare it also to what the projections are for the assumed cost of climate change impact, and you will see that disaster risk is at least as much and for many regions, even more, for climate change impact today. I hope you will come to Sendai and participate in the discussions there.

Status Reports

The progress of the HFA: From Global to Local – Ensuring the health of populations

Alex Ross, Director, WHO Kobe Centre (WKC)



On behalf of entire WHO community, I would first like to pay respect to all the persons who had perished during the Great Hanshin-Awaji Earthquake, as well as the many survivors and the persons who were affected by the earthquake.

The inspiration of the earthquake itself led to the creation of the Hyogo Framework for Action (HFA), which was the first international framework to think about disaster risk reduction. This also led to the creation of the World Health Organization here in Japan, particularly through the WHO Kobe Centre.

Today I would like to present to you some of the key lessons from WHO and our work here in Kobe and Hyogo. The Centre itself was created to be a centre of excellence for research on the consequences of social, economic, and environmental change, and its implications for health policies. Specifically, we've been working to understand the lessons for how cities respond to health systems and emergencies and protect their populations. When it comes to the HFA, WHO in Kobe has been a bridge between the global community of WHO and the local community, and we have been focusing on the whole continuum of health emergency management. This includes preparedness, response, and recovery, as well as resilience.

There are many types of disasters including earthquakes, volcanoes, floods, extreme heat, extreme cold, and diseases. The WHO Centre here has been able to provide advice locally, both around pandemics and noncommunicable diseases (NCDs), and you see from the list here a number of areas in which we have been engaged. We have developed strategic directions for understanding how cities respond to emergencies. This involves both management as well as understanding the technical issues and preparation. We've done some work looking at climate change and the health impact of climate change, particularly how to help cities understand the vulnerabilities that they face, and how to translate that into action and preparation.

The first HFA priority was about political will and in this regard, WHO and the WHO Kobe Centre have been working on safe hospital initiatives and helping governments

understand risk, and how to translate that into actions. There's work both internationally and locally in this area, and while resource allocation for preparedness is difficult, there are many challenges that we've identified and have understood. The second HFA priority is around risk identification. There's an international treaty called the International Health Regulations which helps countries respond and identify risks from any biological, chemical, or radiation related emergency, and this is translated into capacity building and awareness raising. So this has been a good opportunity to help provide some technical advice and information locally. Another part of our work in Kobe is looking at how cities conduct vulnerability risk assessments, and helping them to understand the impact on health and on the community. The third HFA area is around knowledge management and education, and here the Centre has been very involved in both training courses for emergency managers and health emergency planners. Another priority is risk reduction, and we've been working with a number of different hospitals and health facilities to better respond to and recover from a disaster. Finally, there is preparedness, and the Centre has done a substantial amount of work looking at lessons from other cities and communities and to bring that together to learn lessons.

There are many priorities that need to be taken care of. One is to protect people's health, and to put the person at the center of the disaster cycle as continuum process. We will also focus on resilience, and how the community is better able to cope and to prepare as well as to think about how we bring together different communities of professions. These are some of the priorities that you should expect to see coming out in the future.

ADRC's Efforts for the Progress of HFA

Kiyoshi Natori, Executive Director, Asian Disaster Reduction Center (ADRC)



First of all, let me explain the background to the Asian Disaster Reduction Center (ADRC). When the Great Hanshin-Awaji Earthquake struck 20 years ago, a substantial amount of international assistance as well as domestic support was provided. In reciprocation for the assistance, the prime minister at the time proposed that Japan would lead the creation of an Asian regional hub of international cooperation and collaboration for disaster risk reduction. Establishment of such regional centers was called for in the Yokohama Strategy and Plan of Action for a Safer World, which was adopted at the 1st World Conference on Natural Disaster Reduction held in Yokohama in 1994.

With approval from Asian countries and considerable support from Hyogo Prefecture, the ADRC was established in 1998. The ADRC's membership has increased from the original 22 member countries to the current 30 members.

The ADRC pursues three main goals: (1) dissemination of information and knowledge about disaster risk prevention, which corresponds to Priority Action 2 of the Hyogo Framework for Action (HFA), (2) deeper cooperation among member countries and with international organizations including Japan's assistance, which corresponds to Priority Action 3 of the HFA, and (3) development of human resources, which corresponds to Priority Action 1 of the HFA. The following are some of our efforts toward achieving these three goals.

First, with regard to dissemination of information about disaster risk prevention, we analyze existing disaster databases and prepare reports. Unfortunately, there has been little progress in developing global concepts and creating a common database in this field.

As the first step toward progress, the ADRC launched the GLobal unique disaster IDentifier (GLIDE) in cooperation with international organizations. A GLIDE number is comprised of letters and numbers that identify the hazard type, the year of the disaster, the serial number, and the country that suffered the disaster. The main feature of GLIDE is consistent organization of data, even when multiple countries are affected by an enormous disaster.

Second, as for cooperation in science and technology, the Sentinel Asia initiative was launched. As the term 'sentinel'—meaning a guard or a soldier assigned to keep guard—indicates, Sentinel Asia helps foster collaboration between space agencies and national disaster management agencies, focusing on emergency observation when a disaster occurs. When it is difficult to perform on-the-ground assessment of damage caused by a massive disaster, or a country cannot

assess the damage itself because the disaster-affected area is too large, a stricken country may request the ADRC to conduct an emergency observation. If such request is considered appropriate, we call on space agencies in Asian countries operating satellites that can observe the ground, such as JAXA in Japan and GISTDA in Thailand, to conduct an emergency observation. Satellite images of the affected area taken by the space agency will be sent to the stricken country. Damage in the affected area can be assessed by comparing images taken before and after the disaster.

Lastly, to develop human resources, each year the ADRC invites to Japan eight young officials or researchers who belong to agencies in charge of disaster management in the national governments of member countries. The visiting researchers stay in Japan for a few months to study a variety of issues in disaster management in each country with advice from Japanese researchers, and attend lectures delivered by various organizations about the disaster risk reduction system and administration in Japan.

The ADRC has so far invited 79 visiting researchers from 26 member countries. After they return to their country, they are promoted in the agency in charge of disaster management, and act as a contact for us, providing updates on disaster management within the country. Thus, we also aim to develop human networks.

The ADRC also undertook a unique project: the publication and distribution of booklets of "Inamura no Hi"—a famous Japanese folk tale about tsunami—in several foreign languages. The costumes and setting of the story were changed to suit each country and the story was translated into several languages. Booklets were used for community-level education about disaster risk prevention by NGOs in some countries. This project was truly worthwhile since we still receive requests for the booklet.

Fourteen countries including Japan, nearly half of ADRC's 30 member countries, have introduced or plan to introduce a fundamental law regarding disaster management. Most of the laws were created in the past decade. Thus, although disaster management in Asian countries is developing in terms of legislation and organization, a shortfall in human resources and budgets is a major challenge for the future. The ADRC will encourage improvement of the capacity of each country for disaster management, responding to more sophisticated and diversified requests from Asian countries for disaster management.

Fundamental Issues for Psychological Recovery

Hiroshi Kato, Director, Hyogo Institute for Traumatic Stress



Mental recovery from a disaster essentially requires recovery of your livelihood. For that purpose, it is necessary for you to keep a healthy life. Moreover, your contribution to your community's reconstruction and the resulting restoration of your roles, especially your tasks, will be the foundation of your mental recovery.

The process of mental recovery corresponds with the period of post-disaster recovery of the entire society. In the recovery phase, the reconstruction of infrastructure tends to take priority over the reconstruction of each person's livelihood, resulting in increasingly unclear scope of impact of disaster damage on each person's troubles and problems. One example is the problem of solitary death after the Great Hanshin-Awaji Earthquake. While about half of the solitary deaths were of elderly persons who died from the exacerbation of their chronic diseases, middle-aged males accounted for 30–40% of the solitary deaths. This fact revealed hidden problems, such as unemployment and alcohol dependence.

Meaningful support for these kinds of people involves thorough programs for reconstructing their livelihoods and identities as well as medical treatment. It is necessary to recognize that important supporters of mental care include not only experts such as medical workers and clinical psychologists but also grassroots activists working for health maintenance and support of affected people's living.

During the final five years of the 20th century, with the 21st century just around the corner, Japan saw various incidents and crimes continuously occurring, leading to increased need and delivery of mental care. In this context, the Hyogo Institute for Traumatic Stress was established in HAT Kobe in 2004 with the aid of a national subsidy. Although the institute was initially expected to play a role in the introduction and dissemination of lessons from the Great Hanshin-Awaji Earthquake, numerous disasters and accidents that happened in and around the same year, including the Chuetsu earthquake and the rail crash on the JR Fukuchiyama Line, have made us devote most of our time and energies to mental care of those affected.

It can be said that the Great East Japan Earthquake and Tsunami in 2011 especially challenged the value of our institute's existence. One of the problems that people in charge of mental care of those affected in Tohoku faced was the difficulty coordinating innumerable outside supporters. Furthermore, the earthquake and tsunami devastated a much larger area than did the Great Hanshin-Awaji Earthquake, and destroyed many psychiatric clinics and hospitals. For example, two medical institutions in Miyagi Prefecture went out of service, and we had to transfer hundreds of inpatients to other

institutions. In Fukushima Prefecture, we were forced to move inpatients from five psychiatric institutions located within a radius of 30 km from the Fukushima Daiichi Nuclear Power Plant to other institutions, an unprecedented activity for us.

The disaster devastated health centers and local municipal health care organizations in charge of support for local communities, and killed many staff members there. In addition, the situation did not easily allow us to procure manpower to cover the losses. People in Tohoku, however, have taken such opportunities to devise various measures, and to conduct diverse activities, including establishment of a mental care center in each prefecture and activities of private organizations, such as NPOs, for people's mental health in some areas. Moreover, they have adopted a unique approach for training affected people as supporters in order to develop new human resources to cover the lack of manpower.

Another mission for us is international contribution through sharing our experience with the world. We have been entrusted by the Japan International Cooperation Agency (JICA) with training for people affected by various disasters around the world, and have invited people from 10 affected countries in Asia and East Africa to receive our training. Myanmar, one of these 10 countries, was affected by the tsunami triggered by the 2004 Indian Ocean Earthquake, and, in the five years after our training program began, it experienced another devastating disaster, Cyclone Nargis, which hit the Mekong River Delta area and killed over 100,000 people.

Former training participants from Myanmar said that they applied the knowledge they had acquired from our training to offer mental support for people in the delta area visiting them by boat. I was very happy to hear that all the 80 psychiatrists in Myanmar had come together to the Mekong River Delta area to provide as thorough support as possible.

We also provided people in China with support in the 2008 Sichuan Earthquake aftermath. This support experience with JICA's help, in the midst of a very delicate relationship between Japan and China, is a valuable asset to us.

Recovery from a disaster requires good mental health of people. For that purpose, I would like to emphasize that reconstructing their livelihoods is the most important task. While mental-care services within local communities in Japan have immensely improved after the Great Hanshin-Awaji Earthquake, the Great East Japan Earthquake aftermath has now made us confront a very difficult situation and strive to tackle enormous challenges. I believe that we must continue being responsible for sustained assistance for the Tohoku region as well as for post-disaster support abroad.

IRP's Progress and Initiatives: "Build Back Better" Approach Towards Comprehensive Disaster Management across the World

Shingo Kochi, Senior Recovery Expert, International Recovery Platform (IRP)



Today I would like to share the application of the concept "Build Back Better" in terms of two aspects. Firstly, by looking at what contributions did Japan make to disaster management abroad and how other countries evaluated those contributions. Secondly, by looking at how the International Recovery Platform (IRP) promoted this concept in support of the realization of the Hyogo Framework for Action (HFA).

Japan's Overseas Development Assistance (ODA) has been playing a key role in promoting "Build Back Better" approach. Let's take a look at Bangladesh for example. This country is hit by a huge cyclone every 20 years. While its size is only one-third of Japan, its population is 1.5 times larger and 80% of its land area is not higher than 9 meters above sea level. In 1970, a cyclone killed about 300,000 and during recovery, the ODA funds from Japanese Government and the Japan International Cooperation Agency (JICA) supported the continued construction of cyclone shelters. This effort has since helped reduce the death toll from a cyclone of the same scale in this country. The cyclone shelter support from Japan had dual effects: it does not only reduce vulnerability because cyclone shelters are equipped with multiple functions, such as evacuation and emergency storage warehouses, but it also provides them with places for primary education. This case showed that Bangladesh gained strong awareness of the concept of "Build Back Better" in the enhancement of disaster management.

Another example is Maldives, an island country which is highly dense with a population of 400,000 people in a very small area of 300 km². This is just about half the size of Hyogo's Awaji Island. In this country, an exceptionally low maximum altitude of around 2 meters forces people to face the threat of storm surges and tsunamis triggered by distant earthquakes. After being devastated by a storm surge in 1987, Japan's ODA, under the concept of "Build Back Better," aided the Maldives in building seawalls, which later greatly contributed to reducing deaths in the country from the 2004 Indian Ocean Earthquake-triggered tsunami. The president and cabinet members of Maldives recognized significant role of Japan's ODA at international conferences held in many places inside and outside the country, including Hyogo.

Now let's turn our eyes to our country, Japan. About 70% of our land is occupied by mountains and half our population is concentrated in 15% of our land area, which is always exposed to disaster risks. It is believed that our experience of development along with our struggles against disasters has given us comparative advantage in disaster management, specifically in the fields of international cooperation. Our experience has qualified us to broadly share with the world our various disaster-related approaches containing successful models, case studies, and lessons.

After the Great Hanshin-Awaji Earthquake in 1995, the Hyogo Prefectural Government played a leading role in the global dissemination of the concepts of post-disaster "Building Back Better" and "Creative Reconstruction." In January 2005, the Hyogo Prefectural Government hosted the 2nd UN World Conference on Disaster Reduction, which adopted the Hyogo Framework for Action (HFA) as well as brought various other outcomes, including the establishment of International Recovery Platform (IRP).

IRP became the international mechanism to promote "Build Back Better". It has massive support from the Cabinet Office of Japan and the Hyogo prefectural government. Moreover, numerous international organizations, such as the Asian Disaster Reduction Center (ADRC) and United Nations' programs and agencies are

member of IRP. During the past 10 years until 2015, IRP promoted "Build Back Better" approaches in support to the implementation of the HFA. The activities of IRP, include on-site survey and subsequent recovery support mainly in large-scale-disaster-affected countries; capacity building for administrators in charge of disaster management; information sharing at international conferences; and the establishment of a recovery case database and further research and study on how to apply the lessons in appropriate contexts. .

One recent example of IRP activities is the on-site survey in typhoon-devastated areas in the Philippines in 2013, resulting in the discovery of a need for capacity building for national and regional government officials. Subsequently, IRP implemented a capacity building program for government officials in the Province of Leyte two months after the survey. In 2014, IRP provided similar capacity building programs in Central America and South Asia. The based materials that were used are "IRP Guidance Notes on Recovery", along various sectors such as governance, shelter, infrastructure, environment, health, psychosocial, and livelihoods. Moreover, IRP publishes report papers on recovery from large-scale disasters, including the 2008 Sichuan Earthquake, Cyclone Nargis that devastated the delta area in Myanmar the same year, and the Great East Japan Earthquake in 2011, to name a few.

During the period between the end of World War II in 1945 and the enactment of the Disaster Countermeasures Basic Law in 1961, Japan accumulated a high death toll from storm and flood damage, often caused by typhoons, partly because of the general vulnerability of houses. To address such a situation, the country adopted the combination of physical and human measures for post-disaster recovery and against the next disaster through a post-war equivalent of "Build Back Better" approach. As precautions against storm and flood damage, the creation of an early warning system and disaster information sharing are given priority, and, based on lessons from the Isewan typhoon in 1959, a weather radar system for typhoon observation was built on the summit of Mt. Fuji, Japan's highest mountain, which started operation in 1964 - just five years after the Isewan typhoon. Thereafter, the first geostationary meteorological satellite Himawari was launched in 1977. Most recently, the Advanced Land Observing Satellite-(ALOS) 2, also known as Daichi-2, was put into orbit in May 2014, which helps us observe global crustal movements with an error of less than two centimeters. These observation data are also an important pillar supporting Japan's international contribution.

In Japan, repeated great disasters, including storms, floods, and earthquakes, have triggered further improvements of both physical and human measures against disasters. These improvements have not only accelerated post-disaster recovery but also facilitated a steady process of building disaster-resilient communities in cooperation with various stakeholders.

To further disseminate the concept of "Build Back Better," IRP is now preparing for the 3rd UN World Conference on Disaster Risk Reduction to be held in Sendai, and the Tohoku Alliance initiatives led by the Development Bank of Japan. With the imminent threats of the Nankai Trough and Tokyo metropolitan earthquakes, the International Recovery Platform, under the auspices of the Japanese Government, will continue to devote our energies to diverse disaster preparedness activities, including capacity building programs and the dissemination of successful models for recovery.

Let's carry on, move forward, and achieve. Thank you.

“Toward a Disaster Resilient Society”

Margareta Wahlström, UN Secretary-General's Special Representative for Disaster Risk Reduction and Head of UNISDR

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

Yoshiaki Kawata, Executive Director, Disaster Reduction and Human Renovation Institution (DRI)

Kawata: The Disaster Reduction Alliance (DRA) was created at the same time as the establishment of the Disaster Reduction and Human Renovation Institution (DRI), which is in charge of DRA's secretarial work. The alliance has accomplished many achievements through almost 10 years of service, and has also built up a strong basis for more practical contributions in the next 10 years. Among its nearly 20 member organizations, only some representative ones gave presentations in this forum due to time constraints.

I would like to start this dialogue with an introduction to JICA's contributions in relation with the Hyogo Framework for Action (HFA) established in 2005, and achievements by HAT Kobe institutions including DRA. And then I would like Ms. Wahlström to make some comments.

After that, we will conclude this dialogue with a discussion of the desirable practical approaches for DRA's next 10 years based on a review of its past activities from an international perspective.

First of all, Mr. Tanaka, would you tell us about JICA's past activities and path forward?

Tanaka: JICA, the Japan International Cooperation Agency, is an organization in charge of implementing Japan's ODA commitments, including yen loans, grant aid, technical cooperation, and secretarial work for Japan Disaster Relief (JDR) teams. Our JDR bureau constantly receives information of disasters around the world, and responds to them by offering material assistance, dispatching medical teams, or other measures. Recently we provided emergency supplies for flood-stricken Malaysia. Additionally, we support construction work through grant aid, and grant extremely low-interest standby loans as a longer-term financial support for post-disaster recovery and reconstruction.

Among all our endeavors, one of the most important is the programs for administrators and experts from developing countries to raise disaster-awareness and discuss various approaches toward disaster risk management. In 2007, JICA and Hyogo Prefecture cooperated to establish the Disaster Reduction Learning Center (DRLC) in JICA Kansai, and a half of JICA's disaster-related training programs are offered there. These training programs, implemented in collaboration with local governments in areas affected by the Great Hanshin-Awaji Earthquake, DRI, and Hyogo Institute for Traumatic Stress, have attracted more than 2,000 participants from about 100 countries as of January 2015.

For example, the training course of community-based disaster risk management offers lessons based on the experience and knowledge of Kobe City's Disaster-safe Welfare Community (BOKOMI) initiative. In Turkey, the Bursa Disaster Learning

and Training Center was established on the model of DRI. JICA is also helping construct cyclone shelters in Bangladesh.

Kawata: I taught at the Disaster Prevention Research Institute, Kyoto University for a long time. During that period, the Isewan Typhoon with 5,098 deaths in 1959 triggered the development of various forms of joint research on disasters and the launch of government-funded overseas surveys and studies. Before the Great Hanshin-Awaji Earthquake, I had conducted about 300 disaster surveys in around 80 countries. The International Decade for Natural Disaster Reduction (IDNDR) also started during that period. In this way, my career has provided me with an international perspective.

The U.S. has recently seen much damage from huge storm surges. Since Japan also has historically been exposed to a very high risk of being hit by such storm surges, I am making surveys from the standpoint of the importance of pre-disaster efforts, rather than post-disaster improvements.

As for the Indian Ocean tsunami on December 26, 2004, I served as the leader of the research team, sending about 80 members to diverse affected countries to devote nationwide human resources to an international survey. We were able to get participation of various countries in our Internet survey including the U.S., U.K., and South Korea, and published a report in English of the results.

The Great Hanshin-Awaji Earthquake triggered the creation of DRA in HAT Kobe, which, as an accumulation of many international administrative institutions, has served as a hub for disaster-related activities. I myself have conducted many joint research projects between academia and JICA. We also have a history of cooperation with JICA in various countries as part of Japan's ODA commitments. I believe that our decade of efforts has established a basis for practical behavior surveys and data collection.

Mr. Tanaka, would you briefly introduce us to some examples of JICA's HFA-related endeavors?

Tanaka: While the world is experiencing increasingly larger and more frequent disasters, we are striving to make more active international contributions in cooperation with UNISDR. One particularly important concept is “mainstreaming disaster risk reduction.” We are emphasizing the importance of prior anti-disaster investment in any development projects based on the consideration of possible responses to potential natural disasters.

Moreover, since there are diverse organizations working for international cooperation in various fields, including humanitarian assistance and development cooperation, we should decrease gaps between organizations and between fields to appropriately respond to great disasters. Immediately after



Typhoon Haiyan severely devastated Leyte Island and other areas in the Philippines in 2013, JICA dispatched a JDR medical team. A project team for accelerating recovery and reconstruction was soon made, and inter-section cooperation started. Just before the JDR team left the country, experts began an on-site survey, and everything easy to repair was repaired at that phase. After that, we constructed primary schools to be used as disaster shelters at no cost to the Philippine government, and at the same time we drew a hazard map as technical cooperation to enable local people to plan long-term disaster management, including the construction of roads and breakwaters. This approach was adopted in the agreement of the Philippine government on the concept of “Build Back Better” based on Kobe’s creative reconstruction.

When a large typhoon again hit the Philippines in autumn 2014, the experience of Typhoon Haiyan made many local people start being evacuated in the early stage. I heard that the hazard map we made was useful then. I think this kind of experience should be widely shared to seamlessly proceed to the “Build Back Better” approach soon after disasters.

Kawata: I think Hyogo Prefecture’s positive attitude toward disaster risk reduction led to the adoption of HFA in 2005. The brochure “Proposal from Hyogo 20 Years after the Great Hanshin-Awaji Earthquake” you have with you introduces examples of Hyogo Prefecture’s endeavors in the past decade both in English and Japanese.

As for “mainstreaming disaster risk reduction,” which has just been mentioned, Hyogo Prefecture, for example, was the first in Japan to establish a Disaster Risk Management Center. The newly launched system of prefecture-wide resource mobilization led by the Superintendent of Emergency Management has accomplished significant achievements, and has been adopted as the standard by most prefectures in Japan now.

Although concern about potential great disasters has made many areas in Japan prepare hazard maps at the municipal level for the past 10 years, people are increasingly less willing to be evacuated. Even though accurate and detailed information has become more instantly accessible, communities or individuals have not yet become able to make good use of it. However, Hyogo Prefecture has made enormous efforts within HFA toward exposing potential risks.

HAT Kobe is home to a wide range of disaster-related organizations, including DRI and JICA. DRI has attracted over six million visitors since its establishment, and recently you can see more and more people from abroad visiting there. I think such multipurpose museums as DRI are rare. Since some foreign countries have become interested in establishing similar organizations, DRI is also contributing to their planning.

As for risk mitigation, Hyogo Prefecture has led the introduction of aseismic structures for public facility buildings. Hyogo is also the only prefecture to lead the creation of a pre-disaster mutual aid system for anticipating more rapid recovery and reconstruction of housing. Furthermore, the prefecture built Miki Disaster Management Park in Miki City. After the Great East Japan Earthquake, the Union of Kansai Governments provided mental and material support for affected areas through a counterpart approach. While more than 2,000 officials sent by many local governments nationwide rushed to affected areas in Tohoku, Hyogo Prefecture particularly took the initiative in sending many experienced officials. Based on these achievements, we would like to continue these efforts to make Kobe the center for these kinds of contributions to both domestic and international society.

Ms. Wahlström, would you give us some comments on these activities?

Wahlström: I would like to share with you one piece of very good news about the new HFA, which I already know for sure will be there. That is the fact that health has made its way into HFA. It was, actually, in the definition last time in HFA as “biological hazards.”

Now, what you have touched on also fits some other main areas of HFA. Another strong wish is that the new HFA should be people-centered, as we call it. It is many of the areas that you have recommendations. It is the mutual help, the focus on people and how they experience a disaster and their challenges in recovering emotionally, and socially.

Building on some learnings from previous disasters including the Great East Japan Earthquake, there is a strong focus on that, but there is also a focus on the capabilities of communities. There is a strong focus on the importance of what I call the ‘local’, because structures are different at each local level and empowering locals are important as they can use their own capacities. There is still a big gap in how to describe in these terms the relationship between the center and the local.

We absolutely need governments that are strong, innovative, sharing, and recognizing, which they do. Governments alone cannot tackle these issues, but then how to organize society around and how to strengthen the government’s both willingness and capability to be inviting are challenging. I think that there is a big opportunity here to really look at the governance’s mechanism’s evolution.

This focus on people is, in every way, very important, and I think it requires a lot more attention and evolution. One strong drive within the HFA2 is that risk information must be, of course, correct, coming from an authoritative source, but also

easily available and accessible.

The risk information is there, the early warning is there, and still people do not move. Why? I think that we have to focus a lot more on how we relate to risk. We have to have a continuous, persistent, and joined up global awareness and education campaign. It means that it needs to be at the top level, let us say global level, certain messages.

Then we have terminology. This is because I realize (and I feel it now from the negotiations) that the same thing has different names in different parts of the world. Standardization is important for the purpose of effectiveness, and collaboration is absolutely critical. You are familiar that we have the ISDR Terminology. Now we have been asked to put this through an intergovernmental process. Some people optimistically believe that in a few years we would agree on the terminology or a comparison across terminologies, although I anticipate a few challenges, to be honest.

The final thing that I wanted to mention in relation to your comment is about competitiveness. That is, of course, directly linked to the economics of disasters. I think that the understanding of the enormous economic impact is not spread wide enough. I think that most governments (not in Japan) actually anticipate or they still believe that the cost/benefit and they act as if cost/benefit of paying for the losses and the reconstruction is still on the positive side to invest in prevention and resilience for the longer term. It is not like that. There is good data that show that that calculation is no longer on the positive side of paying. Therefore, instead, it is sort of a consideration of the timeframe of your own responsibilities. I think that we experts have to learn how to present the options to the political leadership in a positive way so that they are more ready, perhaps, to see the cost/benefit over short periods of time.

These are some of the opportunities, but I think that you have touched on many of them. Thank you.

Kawata: Ms. Wahlström, thank you very much for your very helpful suggestions for future DRA activities. Dr. Alex Ross, Director of the WHO Kobe Center is in attendance here. Dr. Ross, would you give us your opinion?

Ross: Thank you very much. We are very proud to be in Kobe and to help bring some of the lessons from Kobe and Hyogo into the international forums, and vice versa in taking the lessons from other communities back here.

Everything that has been said has been an excellent preparation for understanding the way forward. We cannot develop 25 different systems for every possible different disaster. The WHO, through its technical work and its system work, has a lot of responsibility.

The second is this issue about identifying vulnerable groups and how to bring that vulnerability into the preparation phase and understanding the impact on the person throughout the system.

Another area that has not had the attention it deserves, and Kato-sensei mentioned it as well, is this notion of the psychosocial impact on the person long term. We are thinking still short term impact of the disaster and what happens, and not as much on the long-term impact. That impact is what then leads to economic recovery and education for that community.

I mentioned safe hospitals earlier today. The safe hospital as an asset of the community like the fire department or like the police department, is something that is essential and is something that is making its way into the post-HFA framework.

The role of technology is across all sectors, but in health technology, it also helps better communicate, and also early warning systems. There is a whole area of work around communication and what we call 'risk communication,' which, unfortunately, we have seen after Fukushima, after multiple different types of disasters. How do we do this better?

Prevention is better than cure, so there is a whole area of work around prevention. From the health standpoint, it is also then about helping to contribute to that governance question about training, capacity building, and systems development.

In short, throughout the continuum of disaster preparedness, response, recovery, and now resilience, the WHO is working to one extent or to another on different parts of that. However, I want to reinforce the need for measurement, as had been mentioned. Also, there is the need to make sure that our systems are actually working and operating is the best way to respond. Thank you.

Kawata: Because natural disasters more severely affect people than things, disaster management and disaster risk reduction require social science-based approaches including capacity building. Dr. David Mammen, who contributed enormously to the recovery from the Great Hanshin-Awaji Earthquake, is also here. Dr. Mammen, would you tell us about the impressions you have received during your past activities?

Mammen: I was so impressed with the remarks about the importance of mental health issues in long term recovery. Twenty years after Kobe and thirteen years after 9/11, we are still seeing many mental health issues that need diagnosis as well as treatment.

The second comment that I wanted to make relates to the emphasis in the Sendai meeting on not only reducing existing risk, but also changing our models of development. Ms. Wahlström, in a keynote address you made two years ago, you

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said that it was not the event itself that creates the disaster, but that it is the society that is the basis for disaster. I am so pleased that, from the preparatory material that I have seen for the conference, there is a great emphasis on reducing the underlying risks and drivers of risk, including bad urban planning.

Kawata: Problems caused by disasters and simultaneous terrorist attacks take a very long time to resolve, revealing various aspects. Dr. Mammen suggested the importance of how to take care of people suffering complex damage from disasters. In Turkey, a museum on the model of DRI was established after the 1999 Izmit earthquake. Mr. Şahabettin Harput, the previous governor of Bursa Province, is here with us. Mr. Harput, would you introduce us to your activities and opinions?



Harput: In Turkey, the Interior Ministry coordinates anti-disaster and post-disaster measures. To learn about disaster management, we entered into a cooperation agreement with JICA in 2006. I visited Hyogo Prefecture with the governor of Istanbul Province before I became the governor of Bursa Province. During my governorship, we established the Bursa Disaster Learning and Training Center modeled after the Japanese predecessor as a way of implementing countermeasures against earthquakes. The opening ceremony was graced with the presence of then Prime Minister Erdogan, who said we should widely share this kind of model around the nation as well as fully appreciate JICA's support. I would like to take this opportunity to express our gratitude to JICA.

Kawata: JICA Kansai is in charge of implementing about 60% of JICA's international training programs. Capacity building certainly requires very long-lasting efforts, but human resources with greater capacity are essential to deal with community and human issues as a priority target for the future. I believe Japan can contribute to this field in the future.

Although the 2004 Indian Ocean tsunami drew attention

to the importance of early warning systems, in the end no such systems were introduced. That is because of military factors; since seismometers are capable of accurately analyzing the scale of an A-bomb test, for example, countries interested in the development of A- and H-bombs are very cautious of sharing seismometer data. In my opinion, if data sharing is impossible, international society had better make efforts to connect each country's tsunami warning system with each other and improve those connected systems.

After the Great Hanshin-Awaji Earthquake, Hyogo Prefecture developed a Phoenix Disaster Management System for the first time in Japan. Governor Ido, would you tell us about successful and problematic examples of its operation activities?

Ido: The lack of information causes greater damage from disasters. The basic concept of the Phoenix Disaster Management System is notice in advance, which means operating a support system based on prior anticipation of damage, even without on-site information, in the case of emergency. Although the torrential rainfall last August that caused a severely devastating landslide in part of Hiroshima City also seriously affected Ichijima District in Tamba City, Hyogo Prefecture, the district was able to issue an evacuation advisory one hour before a landslide disaster occurred. Local municipal governments issued evacuation advisories based on forecast information given by the landslide disaster risk information system, which is capable of assessing landslide risk on a scale of one to five for each one-km² area. I think this is a successful example of the system's operation.

Kawata: The earthquake 20 years ago taught us that we do not have the slightest chance for action without information when a disaster occurs. This lesson has triggered tremendous progress of information-based measures, including the geographic information system (GIS) and management system. When the Great East Japan Earthquake hit the Tohoku region, we already had in hand a completed system for uniting all the pieces of information that automobile companies in Japan collected from car navigation systems and showing traffic situations as big data almost on a real-time basis.

In addition, academia has finished a system for telling a wide range of information, including the earthquake's epicenter and scale, and the population of residents and the number of large companies and employees within every certain-kilometer radius of the epicenter on a real-time basis. I hope such products of academic research will be used more freely in many developing countries. Mr. Hirofumi Hihara, Director-General for Disaster Management of the Cabinet Office is also in attendance here. Mr. Hihara, I think these kinds of applications are being utilized as part of the national government's response to disasters. Would

you give some comments?

Hihara: As Governor Ido just mentioned, although the landslide in Hiroshima and the eruption of Mt. Ontake were not physically so large-scale, the large numbers of deaths that they caused made these natural incidents severely devastating disasters. I understand this raises many challenges for us.

As Ms. Wahlström just said, disasters are related with society and people's way of living and behavior. The Japanese language does not distinguish between "disaster" and "hazard," and calls both of them saigai, but it is important for us to improve our behavior to reduce damage from hazards of the same scale as past ones. For that purpose, we are implementing material measures such as the construction and maintenance of infrastructure. Different hazards vary in scale. I think mainstreaming disaster risk reduction means being always aware of disaster management in diverse aspects, including material measures for reducing direct damage to people and human measures such as evacuation, even if hazards are the same in scale as past ones. For this approach, the concept of "Build Back Better" is essential.

Because disaster management really requires comprehensive measures and the mobilization of all our resources, we are making efforts to bring together all our intellect and wisdom in diverse fields into various measures including psychosocial ones.

Kawata: I would like to use the rest of the time to receive advice on DRA's future activities. For example, ways of thinking of disasters in relation to the economy have been widely accepted. IMF and the World Bank have begun discussions focused on this aspect. However, one problem is that more and more disaster-related administrators have no on-site knowledge. If people without first-hand knowledge of affected areas continue discussing disaster management depending only on data, the gaps between them and the people in affected areas will necessarily grow.

No post-disaster recovery and reconstruction could be possible without the consideration of the regret and pain of people killed by disasters and those close to them. We have various sets of arranged data these days, and I think more platforms of this kind will be developed and improved. However, I believe it is dangerous if we think we can understand all about disasters through such data alone. I can't think of other examples besides JICA for sending researchers to disaster-affected areas around the world soon after a disaster happens, with the task of performing long-term on-site surveys. Mr. Tanaka, would you give us some comments on JICA's overseas activities?

Tanaka: I always think it is critically important that leaders of developing countries have a recognition and imagination of how a disaster will affect and change their local communities. JICA

is now striving to develop an economic model that will show how prior investment in future disaster damage can reduce the damage from an actual disaster according to the amount of the investment. To share on-site knowledge with future important post holders in developing countries, I believe a strategic selection of training program participants to be invited is critical.

The Great East Japan Earthquake has provided one lesson for us: a kind of wrong safety awareness slows people's evacuation. For instance, if you believe the breakwater is extremely high, you will not escape even if someone tells you that a tsunami is coming. Hazards beyond your anticipation will cause serious damage even to places that the hazard map says are safe. I believe that leaders of disaster management should be creative in anticipating damage.

Another point I would like to mention is that disaster management as a social phenomenon requires the participation of a wide variety of people. In the Tohoku region in Japan as well as in developing countries, one set of people alone, males for example, cannot complete all of the evacuation, the construction of shelters and temporary housing, as well as community building. It is essential that a diverse range of people – males, females, the challenged, the aged, and others – all participate in decision-making and planning, and discuss post-disaster responses. JICA will conduct the necessary survey for that purpose, and is ready to accept many participants from abroad in necessary programs for that purpose. We look forward to DRA's cooperation with us in these endeavors.



Kawata: One major problem is that there is no standardized terminology. In the early phases of IDNDR, the Japanese government compiled a Japanese-English dictionary of disaster-related terminology. However, the problem is not the difference between Japanese and English expressions but the difference between diverse disciplines, such as civil engineering, architecture, and geophysics, in ways of expressing the same

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phenomenon. This causes total confusion when experts in diverse fields try to cooperate. I hope the HFA2 will draw accurate comparisons between different definitions of terms to facilitate smoother collaboration.

In conclusion, Ms. Wahlström, would you give us some final remarks?

Wahlström: I think that, for each one of you, as we are experts on one piece of DRR, probably, what I am going to say now does not necessarily need to change what you do, but the changing environment is important. One of the risks that I think we run in our passion for what we do is to project an image that 100% safety is possible. We know that it is not, of course, but we know that we have to have that politically moral ambition because I think it has to do with how people react, particularly in very rich countries. However, I think that it generates a new set of risks that, as I say, it is more contextual than that I have some concrete action for it right now.

The second one is national security issues. In more and more countries, the management of disaster risk is actually part of the overall management of countries' national safety and security. It is not the same, but it is in the same institutional perspective. It is not the same as it was 13 or 14 years ago. It is actually a much more evolving issue now that that competences to manage the overall risk perspective to a nation's social stability for some countries, and, of course, general security issues for others, somehow is not going into the same kind of expertise of risk management. Therefore, there are some interesting future issues coming here.

The third one actually relates to this local central government issue. Apart from the classical tension, competition, or whatever it is between local and central, there is an issue of functionality and continuity of action. If there is not a well-developed system, or a switch between the central and local responsibility, then you have a period of inaction and confusion about who is in charge. It creates great damage. This happens in most countries in the world because of the first fact that they really have not worked through this functionality of operations or responsibilities when one or the other loses its capability, let alone backup systems for population data and things that really are required, too. Then we have this idea of terminology. Let us start with the practical approach, because I really believe that this has to be done. We have great possibilities to achieve it.

Finally, I would like to comment on this social issue and the fact that it is the society itself that creates the disaster as opposed to the hazards. There is a lot of focus now on urban risk, for good reason, because soon we will all live in cities. Now that we have become urban people, we have completely different relations,

or lack thereof, with each other. Typically, some of the things that cause disasters in urban areas are that the social networks are much weaker. People do not know much about each other in big cities. There are a lot of examples of how the lack of personal networks causes unnecessary tragedy.

The second one is the lack of mutual help systems that you have highlighted as one of the successes and innovations after Kobe. It is, because of the lack of networks, but also because of different financial capability, and no organizing principle, that the mutual self-help is not effective in non-disaster time, and not necessarily in catastrophic times. The result of this is, that after the disaster, we start innovating and doing it and we don't have any pre-plan. It is interesting and harmful in the sense that it slows down necessary and good action, is the misunderstandings that is then created between the civil part of society and government sometimes, because they do not take each other as actors in society. I think that all of these things we have learned over the years.



Kawata: There is no surefire remedy for disaster management and disaster risk reduction. It is important for us to continue to accumulate various forms of efforts and improvement. Since this requires advance consensus among all people, we promise to continue our endeavors as DRA in continued cooperation with a wide range of organizations. We look forward to your continued assistance and understanding. I would like to bring this dialogue to a close now. Thank you very much for your attendance today.

Summary · Closing

Makoto Iokibe, President, Hyogo Earthquake Memorial 21st Century Research Institute; Chairperson, the Disaster Reduction Alliance (DRA)



Today's forum, held in Kobe, is a result of the "surprise attack" by the 1995 Great Hanshin-Awaji Earthquake twenty years ago. People in the Kansai region at the time never thought that a major earthquake would occur in their region. No large earthquakes had occurred in Japan since the 1948 Fukui Earthquake. Ms. Margareta Wahlström referred to the saying that Governor Toshizo Ido told her: "A natural disaster strikes when people lose their memory of the previous one." The Great Hanshin-Awaji Earthquake was such a shocking disaster that embodied this saying.

It is not common that a disaster-stricken area establishes a disaster museum. Establishing a think-tank to support future disaster risk reduction (DRR), in addition to a museum, is truly a rare example. The Tokyo Institute for Municipal Research, established by Tokyo Mayor Shimpei Goto with the support of the Yasuda Foundation, and dealing with issues concerning the Great Kanto Earthquake, had been established before the disaster. The establishment of a think-tank by the national and prefectural governments, inspired by the Great Hanshin-Awaji Earthquake, forms a unique history of Hyogo.

Prof. Yoshiaki Kawata, Executive Director of the Disaster Reduction and Human Renovation Institution (DRI), has led the promotion of DRR by applying his professional expertise developed at the Disaster Prevention Research Institute, Kyoto University, to the real world. The Hyogo Institute for Traumatic Stress, represented by Dr. Hiroshi Kato, is a valuable DRR research institute established along with the DRI, based on the recognition that emotional care is essential in the recovery process of a mature society, in the stage following physical recovery.

The Hyogo Earthquake Memorial 21st Century Research Institute is a think-tank conducting research activities over these institutes. Mr. Ido was Vice Governor of Hyogo Prefecture twenty years ago when the Governor was Mr. Toshitami Kaihara, who recently passed away. Mr. Kaihara strongly focused on the idea of "creative reconstruction" (Build Back Better than Before). He firmly maintained his idea that we must newly create something meaningful that will become a legacy, or an asset, for the 21st century. That is why he established this intellectual hub with a cluster of international institutes, after devising ways to meet national regulations and buying up the former site of Kobe Steel, Ltd.

The 18 institutes and organizations in the area have together hosted the annual DRA Forum since 2002. This year, on the occasion of the 20th anniversary of the Great Hanshin-Awaji Earthquake, we were able to hold such a big forum. Today we received presentations from four of the eighteen organizations. The WHO Kobe Centre, represented by Mr. Alex Ross, inspired discussions on the importance of health and medicine during disasters.

While disasters such as the Earthquake are natural phenomena, the degree of damage is determined by how the

local area responds to them. In the long course of history, Japan has had difficulty responding effectively to disasters. Soil and water conservation techniques developed significantly in the process of developing an agricultural society and establishing a unified nation around the 4th and 5th centuries. However, since a tsunami occurred only once in fifty or a hundred years, people constructed similar houses in similar areas, after suffering damage many times.

No matter how we advise developing countries to prepare for disasters, they cannot use a major part of their national budget for countermeasures against disasters that occur once in a hundred years while they are living from day-to-day. This was also the case for Japan in the past. After all, unless a society becomes mature, it is difficult for its members to make conscious efforts towards DRR.

What brought about a breakthrough in this situation was the movement for setting international standards, led by the United Nations. Knowledge on DRR and risk management was provided widely, in order to establish strict standards. It is not easy for every community to meet such standards, yet at least approaches and information-sharing under international standards help motivate communities and their leaders to achieve them.

Amid that movement, Hyogo Prefecture, a region recovered from the experience of the Great Hanshin-Awaji Earthquake, became the venue for establishing the Hyogo Framework for Action (HFA) in 2005. I am truly proud of this. It is quite significant that the HFA was highly viewed as an international standard for risk recognition and mitigation, specifically, for sharing and providing disaster-related knowledge, educating people, and making prior responses.

Ten years later, the movement is reaching a climax at the UN World Conference on Disaster Risk Reduction to be held in Sendai. Witnessing now the Great East Japan Earthquake and the 2004 Indian Ocean Tsunami, we can guess that the scales of disasters themselves are growing larger, while climate change is causing an increase of torrential heavy rains. At the same time, urbanization is adding to the vulnerability of human society. Furthermore, in developing countries, it is difficult to conduct effective disaster response measures due to poverty. The said conference being held in Sendai at this time is, as Ms. Wahlström also said, quite timely.

Although the HFA has established general standards, it is necessary to review them on a constant basis looking at the specific situations of each nation. Here in the area affected by the Great Hanshin-Awaji Earthquake, half of the population are those who hadn't experienced the disaster. It is important to renew the memories and prepare for disasters. JICA has conducted seminars on disaster knowledge and DRR trainings, in cooperation with local bodies. Two thousand people from 100 countries have received the training. If they are in key positions in their home countries, they can make a major difference in the

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outcome when a disaster occurs.

Mainstreaming DRR is also essential. It is vital to embed the importance of DRR in every issue, and to cooperate with organizations that can provide seamless support, such as JICA. When safety is lost after a disaster, the foundation of society—economic development, welfare, and culture—will be completely destroyed. It is more beneficial to take DRR measures beforehand than to use trillions of yen for reconstruction after experiencing such a destruction. I am looking forward to JICA's creation of economic models and their verification of them.

The Phoenix Disaster Management System was referred to in the discussions. Immediately after the Great Hanshin-Awaji Earthquake, we had to count the number of bodies and measure the damage. Now, technologies have been developed and we can estimate the damage in an instant using a computer system, not in several-square-kilometers but in 250-square-meters. We can provide necessary support based on the immediate estimate, which can be modified later according to the actual situation. It is a great pleasure for me to see such an improvement.

Furthermore, prior measures for DRR, based on scientific views, are now being taken in Japan. Kushimoto Town in Wakayama Prefecture began collectively moving to higher places under the prospect of a great earthquake and tsunami occurring in the Nankai Trough. Schools, hospitals and elder care facilities are transferring. Hilltop residences, developed by the private sector, are attracting more people after the Great East Japan Earthquake. Fire stations and police stations will also be relocated since they must keep themselves safe during a disaster, and finally the city hall will be moving. This is a rare example in the history of Japan.

After the 1896 Sanriku earthquake and tsunami, some residents tried transferring to higher ground, but they couldn't continue living there because it was too inconvenient. After the Great Kanto Earthquake, the Reconstruction Bureau of the Home Ministry strongly promoted city planning. The officials who had the know-how developed through the process promoted relocation of 3,000 houses to higher places ten years later, on the occasion of the 1933 Sanriku earthquake and tsunami.

After the Great East Japan Earthquake, a system was established enabling all villages to relocate to higher ground with 100% of the burden on the national government, if the residents hope to do so. Under the previous scheme by the Ministry of Land, Infrastructure, Transport and Tourism, 3/4 of the burden was on the national government, and 1/4 was on local governments. In the case after the Great Hanshin-Awaji Earthquake, even the 1/4 burden was too heavy for local governments, and it still remains in debt of 570 billion yen. Small local governments in Tohoku cannot bear the 1/4 burden. At first, as chairman of the Reconstruction Design Council, I asked the national government to bear 90% to 95% of the burden, but the request was rejected. In autumn, however, when

the officials visited me to explain their plans, they said that the national government would bear all expenses for relocation to higher places and construction of coastal levees. I was surprised and asked, "Doesn't the 100% burden scheme create a moral hazard?" Even though this problem remains, it is a meaningful fact that generous support is now provided to affected areas in this economic depression brought about during the "Lost Two Decades."

Some villages located inside the not-so-high coastal levees in Kochi Prefecture have only one- or two-story buildings. In addition, since the plain area is too large, they cannot flee from tsunami. The mayor of Kuroshio Town in Kochi is working hard to establish measures that enable all citizens to survive. In Japan, wherever you are, you could be affected by natural disasters. Therefore, response measures based on mutual help, involving all citizens, are now being advanced. I believe that struggling endlessly for DRR is the great nature of human beings. Thus it is a very important issue for us to promote international DRR cooperation with Asian countries and the rest of the world, in partnership with JICA.

With the growing danger of a Tokyo Metropolitan earthquake, it may be difficult to support Japan in the present framework of overconcentrated power and population in Tokyo. Through today's discussions, I have come to think that the institute developed by the national and prefectural governments in the course of the last twenty years, can be considered as one pole of national DRR facilities. Today's discussions, expecting the Hanshin and Awaji regions to continue meaningful activities as affected areas for the sake of Japan and the world, were truly fruitful.

Ms. Wahlström as the keynote lecturer, President Akihiko Tanaka of JICA, Executive Director Kawata of DRI, and Dr. David Mammen as a floor participant, all provided me with valuable advice and helped me greatly at the launch of the institute 20 years ago. I would now like to close today's event by expressing my heartfelt gratitude to all of them, as well as to all participants who stayed here to this moment.

Thank you very much.



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Disaster Reduction Alliance Member Organizations

- Asian Disaster Reduction Center
- The Asia-Pacific Network for Global Change Research
- Disaster Reduction and Human Renovation Institution
- Education and Research Center for Disaster Reduction (ERCDR), University of Hyogo
- Hyogo Earthquake Engineering Research Center
- Hyogo Earthquake Memorial 21th Century Research Institute
- Hyogo Emergency Medical Center
- Hyogo Institute for Traumatic Stress
- International EMECS Center
- Institute for Global Environmental Strategies
- International Recovery Platform (IRP)
- Japan International Cooperation Agency
- Japanese Red Cross Hyogo Chapter
- Japanese Red Cross Kobe Chapter
- Kobe Local Meteorological Office
- United Nations International Strategy for Disaster Reduction (UNISDR) Office in Japan
- United Nations Office for the Coordination of Humanitarian Affairs Kobe Office
- World Health Organization Centre for Health Development (WHO Kobe Centre)

The Great Hanshin-Awaji Earthquake 20th Anniversary Event ; Symposium on Catastrophic Disasters

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International Disaster Reduction Forum Executive Committee

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(人と防災未来センター内)

〒651-0073 神戸市中央区脇浜海岸通1丁目5-2 西館6階

TEL:078-262-5095 FAX:078-262-5082

International Disaster Reduction Forum Executive Committee

1-5-2 Wakinohama Kaigan-dori, Chuo-ku, Kobe, Hyogo Zip: 651-0073

TEL: +81-78-262-5095/Fax: +81-78-262-5082

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