



Urban Resilience Forum Tokyo (URF)

Effective Disaster Risk Reduction in Urban Management

~Common Responsibilities and Unique Initiatives~

REPORT

Tokyo, Japan

(May 20-22, 2019)

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U20 Mayors Summit

1. Forum Overview

(1) Outline

Conference name:	Urban Resilience Forum Tokyo (URF)
Hosted by:	Tokyo Metropolitan Government
Purpose of Conference:	<p>In the lead-up to the Olympic and Paralympic Games Tokyo 2020, and in the face of increasingly frequent and intensified urban disasters worldwide, representatives met at this forum to share knowledge and policies on disaster preparedness to increase intercity solidarity and common assets. The forum made an appeal to the world regarding the importance of disaster preparedness in urban areas.</p> <p>[Theme] Effective Disaster Risk Reduction in Urban Management- Common Responsibilities and Unique Initiatives</p>
Date:	Monday, May 20 – Wednesday, May 22, 2019
Venue:	<p>Hyatt Regency Tokyo 2-7-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo 160-0023 Japan</p> <p>Hilton Tokyo 6-6-2 Nishi-Shinjuku, Shinjuku-Ku, Tokyo 160-0023 Japan</p>
Participants:	<p>52 persons and several others from 17 cities with Tokyo inclusive, totaling approximately 100 persons</p> <p>*Mayors/Governors, Vice Mayors/Vice Governors from 9 cities.</p>

(2) Program

Day 1 (Monday, 20 May)

Time	Program
18:30-20:00	Welcome Reception (hosted by two of Tokyo's vice governors) Venue: Hyatt Regency Tokyo, Century Room, B1 Floor

Day 2 (Tuesday, 21 May)

Time	Program		
9:15-	Opening Venue: Hilton Tokyo, Kiku, 4th Floor		
10:00-11:30	Sub Session 1 and 2: Structural Measures Against Earthquakes and Flood Disasters Speakers 1. Christchurch 2. New Orleans 3. Tokyo (Bureau of Urban Development) 4. Tokyo (Bureau of Construction) 5. Wellington Venue: Hyatt Regency Tokyo, Excellence, 27th Floor		
11:30-13:00	Lunch Venue: Hyatt Regency Tokyo, Heian, B1 Floor		
13:00-14:30	<table border="0"><tr><td>Sub Session 3: Non-Structural Measures Against Earthquakes Speakers 1. Mexico City 2. Santiago 3. Tokyo (Disaster Prevention Division) Venue: Hyatt Regency Tokyo, Excellence, 27th Floor</td><td>Sub Session 4: Non-Structural Measures Against Storm and Flood Disasters Speakers 1. Bangkok 2. Hanoi 3. Rotterdam 4. Tokyo (Disaster Prevention Division) Venue: Hyatt Regency Tokyo, Sky Room, 28th Floor</td></tr></table>	Sub Session 3: Non-Structural Measures Against Earthquakes Speakers 1. Mexico City 2. Santiago 3. Tokyo (Disaster Prevention Division) Venue: Hyatt Regency Tokyo, Excellence, 27th Floor	Sub Session 4: Non-Structural Measures Against Storm and Flood Disasters Speakers 1. Bangkok 2. Hanoi 3. Rotterdam 4. Tokyo (Disaster Prevention Division) Venue: Hyatt Regency Tokyo, Sky Room, 28th Floor
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15:00-17:15	<p>Mayoral Round Table Meeting</p> <p>Moderator</p> <p>Ms. Mami Mizutori (Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction, and Head of United Nations Office for Disaster Risk Reduction (UNDRR))</p> <p>Speakers</p> <ol style="list-style-type: none"> 1. Yuriko Koike (Governor of Tokyo) 2. Lianne Dalziel (Mayor of Christchurch) 3. Anies Baswedan (Governor of Jakarta) 4. Nguyễn Văn Sửu (Vice-chairman of Hanoi People’s Committee) 5. Emmanuel Gregoire (1st Deputy Mayor of Paris) 6. Ahmed Aboutaleb (Mayor of Rotterdam) 7. Hee-sun Jin (Vice Mayor of Seoul) 8. Shukhrat Khudoykulovich Turdikulov (Deputy Mayor of Tashkent) <p>Venue: Hyatt Regency Tokyo, Crystal Room, B1 Floor</p>
17:15-17:45	<p>Meeting to finalize Tokyo Declaration by the mayors (moderated by Ms. Mizutori)</p> <p>Venue: Hyatt Regency Tokyo, Crystal Room, B1 Floor</p>
19:30-21:00	<p>Farewell Reception (hosted by Governor Koike)</p> <p>Venue: Happo-en</p>

Day 3 (Wednesday, 22 May)

Time	Program
9:30-11:00	<p>Special Program for URF Participants</p> <ul style="list-style-type: none"> - Ride the Tokyo Fire Department Virtual Reality Truck to experience earthquake shakes, images, and smells - <p>Venue: Hyatt Regency Tokyo, Sky Room, 28th Floor</p>
11:20-11:40	<p>Announcement of the U20 Communique and Tokyo Declaration on Urban Resilience</p> <p>Venue: Hilton Tokyo, Kiku, 4th Floor</p>
12:00-13:00	<p>Lunch</p> <p>Venue: Hilton Tokyo, Fuji/Sakura, 3rd Floor</p>
13:20-	<p>Site Visit</p>

May 23-May 24 Tohoku Area Study Tour

(3) List of participating cities

City Names	
Bangkok	Buenos Aires
Christchurch	Durban
Hanoi	Jakarta
Mexico City	New Orleans
Paris	Rotterdam
Santiago	Seoul
Tashkent	Tirana
Ulaanbaatar	Wellington

(4) List of participants

No.	City	Name		Title
1	Bangkok	Prayoon Krongyoth	Mr.	Deputy Director-General, Bangkok Fire and Rescue Department
2	Bangkok	Krongthum Neelapaichit	Ms.	Foreign Relations Officer, Practitioner Level, International Affairs Office
3	Bangkok	Phimlaphatr Buajud	Ms.	Human Resource Officer, Professional Level, Training Section, Technical and Planning Division, Bangkok Fire and Rescue Department
4	Christchurch	Lianne Dalziel	Ms.	Mayor
5	Christchurch	Michael Jopseph Gillooly	Mr.	Chief Resilience Officer
6	Durban	Bongumusa Thompson Mbhele	Mr.	Chief Operation Officer
7	Durban	Chumisa Natalia Thengwa	Ms.	Acting Deputy Head
8	Durban	Zamangwane Cynthia Khuzwayo	Ms.	C40 Program Manager
9	Durban	Siboniso Goodhope Martin Xaba	Mr.	Head of Mayoral Parlour

10	Durban	JAMILA JOYCE NDOVELA	Ms.	SENIOR COORDINATOR
11	Hanoi	Nguyễn Văn Sửu	Mr.	Vice-chairman
12	Hanoi	Nguyễn Trọng Minh	Mr.	Officer of Hanoi People's Committee's Office
13	Hanoi	Nguyễn Tuấn Anh	Mr.	Deputy Director of Hanoi Police Department
14	Hanoi	Tạ Văn Tường	Mr.	Deputy Director of Hanoi Agriculture and Rural Development Department
15	Hanoi	Nguyễn Nam Hải	Mr.	Deputy Director of Hanoi Foreign Affairs Department
16	Hanoi	Lê Huy Hoàng	Mr.	Officer of International Cooperation Division, Hanoi Foreign Affairs Department.
17	Jakarta	Anies Rasyid Baswedan	Mr.	Governor
18	Jakarta	Shinta Nindyawati	Mrs.	Head of International Cooperation Division

19	Jakarta	Enggar Ferry Wibowo Sugiharto	Mr.	Head of International Organization Sub Division
20	Jakarta	Didit Okiandi	Mr.	ADC
21	Jakarta	Kreshna Aditya	Mr.	Governor's personal Aide
22	Jakarta	Ridwan Maulana	Mr.	
23	Jakarta	Arifin Asydhad	Mr.	Editor in Chief Kumparan
24	Jakarta	Gina Karina	Ms.	Country Manager ICLEI Indonesia
25	Jakarta	Sri Mahendra Satria Wirawan	Mr.	Head of Board for Regional Planning
26	Mexico City	Diana Alarcón González	Dr.	Chief Advisor and Foreign Affairs Coordinator
27	New Orleans	Joseph William Threat	Mr.	Manager, Project Delivery Unit (PDU)
28	Paris	Emmanuel Gregoire	Mr.	First Deputy Mayor of Paris
29	Paris	Patriziana Saparacino-Thiellay	Ms.	Ambassador, Diplomatic adviser to the Mayor of Paris

30	Rotterdam	Ahmed Aboutaleb	Mr.	Mayor
31	Rotterdam	Arnoud Molenaar	Mr.	Chief Resilience Officer
32	Rotterdam	Martijn Huijskens	Mr.	Head of International Affairs
33	Santiago	Ana Luisa Yañez Jofre	Ms.	Director of Civil Protection and Emergency
34	Seoul	Hee-sun Jin	Mr.	Vice Mayor
35	Seoul	Kihyun Kim	Mr.	Director of Safety Management Division
36	Tashkent	Shukhrat Turdikulov	Mr.	Deputy of Mayor
37	Tashkent	Mukhtar Mukhitdinov	Mr.	General Directorate for Emergency Situations of the city of Tashkent
38	Tashkent	Anvar Yakubov	Mr.	Leading specialist of Municipality Secretary
39	Tashkent	Yusufbek Erkinov	Mr.	Leading Specialist of Tashkent Municipality
40	Tirana	Anuela Ristani	Mrs.	Chief of Staff at the Municipality of Tirana
41	Tirana	Bledi Cikopana	Mr.	Head of Customer Care, Tirana Water and Wastewater Utility Company

42	Ulaanbaatar	Khaliunbat Myagmarjav	Mr.	Deputy Governor of the capital city Ulaanbaatar, in charge of Innovation and Technology
43	Ulaanbaatar	Mend-Ochir Melscho	Mr.	Advisor to the Governor of the capital city Ulaanbaatar
44	Wellington	Michael Mendonca	Mr.	Chief Resilience Officer
45	Wellington	Hayley Moselen	Ms.	Technical Manager, Resilient Buildings
46	Tokyo	Yuriko Koike	Ms.	Governor of Tokyo
47	Tokyo	Masahiko Endo	Mr.	Director General, Bureau of General Affairs, Tokyo Metropolitan Government
48	Tokyo	Shigeru Kobayashi	Mr.	Deputy Director General for Crisis Management, Tokyo Metropolitan Government
49	Tokyo	Nobutada Tomonaga	Mr.	Director for Bureau of Urban Development, Tokyo Metropolitan Government
50	Tokyo	Kazuhiro Kobayashi	Mr.	Senior Director, Bureau of Construction, Tokyo Metropolitan Government

51	Tokyo	Koichi Arigane	Mr.	Senior Director, Disaster Prevention Department, Bureau of General Affairs, Tokyo Metropolitan Government
52	Tokyo	Motohiro Koga	Mr.	Senior Director for Disaster Prevention Planning Bureau of General Affairs

2. Opening

(1) Opening remarks

Yuriko Koike (Governor of Tokyo)

U20/URF: Opening remarks

May 21 (Tue), Tokyo Hilton

Good morning, everyone. I would like to extend a very warm welcome to Tokyo to all of you.

It is a great honor to be here with you today to open the Urban 20 Mayors Summit and Urban Resilience Forum Tokyo or URF.

I am very pleased that so many of my peers—governors and mayors from around the world—gathered to take part in the U20 Summit and URF. As Chair of both conferences, I would like to express my sincere gratitude for your time and commitment.

It is also an honor to welcome Dr. Malone, Rector of United Nations University, who will give the keynote speech at the U20 Summit, and Ms. Mizutori, Head of UNDRR, who will moderate the Mayoral Roundtable Meeting at URF.

From the standpoint of heading a municipal government, which is entrusted with the lives of residents, I believe that all of the governors and mayors here face difficult realities, seek the best options, and launch concrete actions on a daily basis.

I am doing the same. In 2016, I took office as Governor of Tokyo after serving as a member of the National Diet for a number of years. The policies that I implement daily aim to resolve local challenges. At the same time, however, I feel that they are also at the forefront of realizing the global agenda.

I believe that you feel the same way and that is why you are here today.

First, I would like to give climate action—a key U20 theme—as an example.

I previously served as Japan's Minister of Environment for three years, and have long focused on climate action. With the group we have gathered today, which includes many C40 member cities, I am sure that no one is more aware than us that both initiatives established based on the local situation and global cooperation are needed for climate action.

Making Tokyo a city where various people connect with each other and anyone can

demonstrate their abilities is also a priority issue of mine. First, through the success of the upcoming Tokyo 2020 Games, and especially that of the Paralympic Games, we aim to create a more inclusive society as a legacy. To that end, we are advancing the popularization of para sports and urban development that eliminates gaps and barriers. In addition, as Tokyo's first female governor, I am also focusing on women's empowerment. There are still many things that we can do to make cities more inclusive.

Furthermore, I consider realization of "Society 5.0," a society that achieves both economic growth and resolution of social issues through the use of advanced technologies, a crucial growth strategy for Tokyo.

As the world considers how to harness rapidly advancing technologies, cities, which are hubs for innovation, as well as centers for daily life, are places capable of showing the world the best direction to take.

When we—mayors and governors—tackle the issues faced by our respective cities, this not only achieves prosperity for our cities, it also contributes to realizing the global agenda. In other words, if we do not implement local policies, neither SDGs nor the Paris Agreement will be realized.

Under such circumstances, one could say that the launch of the U20 initiative, which attempts to engage cities in the G20 process, was inevitable. It was a great honor to take over as the 2019 Chair and carry on the success of the 2018 U20 Summit in Buenos Aires.

The U20 will submit this year's communique to Prime Minister Abe. By doing so, we, the governors and mayors of the world, will bring to the attention of G20 leaders specific matters that we should work together on.

Meanwhile, as one of my initiatives, we have been holding international conferences that gather city leaders and provide a forum for discussion on themes related to serious challenges faced by cities.

This time, seizing on the opportunity presented by the U20, which gathers many cities, we are hosting the Urban Resilience Forum Tokyo on the theme of disaster preparedness.

We are pleased that many cities are attending the conference, and I am once again reminded of the high level of interest in disaster preparedness.

Disaster preparedness requires measures rooted in the characteristics and situation

of a particular area. This is a policy area in which cities have the responsibility to advance concrete and proactive measures.

Since taking office, I have raised the “Safe City” concept as a central pillar of policy, and pursued making Tokyo, Japan’s capital, a safe city that offers peace of mind. Last year, when Japan was struck by major earthquakes and floods, we conducted an emergency overhaul of all Tokyo Metropolitan Government measures for disasters. Based on the results, we immediately shifted into action, preparing a budget for 12 initiatives, including one to expand the use of timelines that outline steps to be taken after a disaster occurs. We are also advancing disaster preparedness measures from the perspective of women, which has been lacking in Japan until now. Efforts include cultivating female disaster preparedness coordinators and other human resources.

At the same time, disaster preparedness is no longer an issue faced only by select cities. In recent years especially, the effects of climate change are causing severe disasters such as torrential rain in many cities, including cities which have suffered few disasters to date.

I am sure that you are already aware that the need to understand and share disaster risks, as well as advance investment in disaster preparedness to heighten resilience, is also set forth in the Sendai Framework for Disaster Risk Reduction adopted at the 2015 UN World Conference on Disaster Risk Reduction.

The importance of measures for disaster preparedness is most strongly understood by cities that have real experience with damages caused by natural disasters and rebuilding following a disaster. I think it is fair to say that sharing such wisdom with the world and stressing the need to make disaster preparedness mainstream globally is a role to be filled by cities with disaster experience.

The U20 Mayors Summit and URF are opportunities for cities to learn about each other’s initiatives and also to deepen collaboration for the future.

Today and tomorrow, six sessions will be held at the U20. And, at URF, the Mayoral Roundtable Meeting and four sub-sessions will be held. I look forward to active and meaningful discussions.

In closing, I would like to thank the people and organizations that have helped make today’s conferences possible, including the six moderators for the U20: Dr. Djalante of United Nations University, Mr. Koresawa from the United Nations Human Settlements Programme, Dr. Das of the World Bank, Mr. Merritt of the World Economic Forum, Ms. Ishikawa of the UN Women Japan Liaison Office, and Dr. Kanie

of Keio University.

I would also like to extend my heartfelt thanks to the C40 and UCLG, conveners of U20, and all of the U20 partner organizations.

In addition, I would like to thank everyone from UNDRR for their valuable advice related to hosting URF.

Through the U20 Mayors Summit and URF, let's show the world the powerful potential of collaboration between cities!

Thank you.

3. Sub Sessions, Mayoral Round Table Meeting

(1) Sub Session 1 & 2

Structural Measures against Earthquakes and Flood Disasters

1. Time/Venue

May 21 (Tue) 10:00-11:30 Hyatt Regency Tokyo, Excellence, 27th Floor

2. Theme

Structural Measures Against Earthquakes and Flood Disasters

3. Participant

<Speakers>

1. Christchurch
2. New Orleans
3. Tokyo (Bureau of Urban Development)
4. Tokyo (Bureau of Construction)
5. Wellington

Presentation <1> Christchurch: Michael Jopseph Gillooly

Christchurch has faced many challenges since the recent earthquakes in 2010 and 2011, which however have also enabled us to reinvent ourselves as an innovative city, both in terms of infrastructure and attitude. Christchurch has a great relationship with Japan, both historically, and in terms of providing mutual support for dealing with recent disasters.



New Zealand is highly susceptible to natural hazards, both seismic and meteorological. Most cities are located in vulnerable coastal regions. Most of the population lives in highly urbanized areas. As a result, we suffer acute impact from shocks and other disasters.

Worldwide, climate-related natural hazard events are on the rise. New Zealand has a small economy and would have trouble dealing with such events. We need to future-proof our cities by making them resilient against such events. We need to make sure such efforts are cost effective. Resilient buildings are safer and help reduce long-term costs by maintaining business continuity and limiting damage. Christchurch is in transition. We are working to build back better to make sure our infrastructure and communities are ready for the challenges ahead.

One of my most challenging roles in my career was being in charge of the city's land drainage and flood protection. The city is highly susceptible to flooding, especially so after repeated seismic shocks and heavy rains. There are three main rivers and numerous streams and drains. Many of these smaller waterways flood frequently. One lesson from disaster response, is that you must not rely on existing rules and

methods. Post disaster, priorities change. I was in charge of the Land Drainage Recovery Program after the major earthquakes in 2010 and 2011. The aim was to reduce the flood levels to pre-earthquake levels and make waterways more resilient to future stressors.

Flooding damage people's homes, businesses, and health and wellbeing. The trauma of floods, on top of the earthquakes, affected people's financial, physical and emotional health. We have implemented a physical works program and been trying to implement projects at a program level to ensure the greatest positive impact.

One challenge is making decisions about flood management in a multi-hazard environment. Different parts of the city are susceptible to different hazards, and many parts are susceptible to multiple hazards. We conducted a multi-hazard analysis in order to develop a robust framework for informing future infrastructure and planning. The physical works program covers areas such as channel modification, pump stations and pipes, storage and treatment facilities, and stop-banks/bunds.

In conclusion, resilience is about preparing people, infrastructures and systems for an uncertain future. It is neither purely top-down nor bottom-up. It requires strong infrastructure, and also strong communities.

Presentation <2> New Orleans: Joseph William Threat

Before working for New Orleans, I was Executive Director of FEMA for Louisiana, so I have a great deal of experience dealing with hurricanes affecting the city, as well as the flooding of the Mississippi.



New Orleans is surrounded by sea and the city has a number of projects in place to use existing structures as subsurface water stores to manager stormwater. The city is also one of the oldest in the United States and we have been working to adapt our stormwater management, for example by improving infrastructure, updating building codes for new structures, retrofitting existing structures and adding green infrastructure. Some examples of solutions for stormwater storage include stormwater lots and parks, bioswales, rain gardens, retention basins, and so on.

New Orleans competed for and was awarded 141 million US dollars from the US Government to establish the first-ever resilience district. The Gentilly Resilience District is one of the major disaster-resilience projects of the city. The district approach allows us to focus interventions geographically, and replicate measures throughout the city and region at larger scale.

We are aiming to implement design that produces multiple benefits and equitable outcomes throughout the community, not only flood risk reduction but also aspects such as health or education. We are engaging communities when designing our measures to make sure we have their buy-in.

The city is highly dependent on levee protection so we are working to improve our levee system in Gentilly. We are also enhancing pumping systems. Furthermore, we are implementing various roadworks in collaboration with the sewage and waterworks authorities.

In enhancing the city's resilience, we also pinpointed the areas of the city that are most susceptible to flooding. One of the largest projects for this is work for Pontilly Neighborhood that includes drainage improvements to the canal and green infrastructure for the neighborhood. Other measures include adding stormwater management features to private residences and monitoring the effect of disasters on various species.

Presentation <3> Tokyo: Nobutada Tomionaga

Tokyo's goal for our earthquake-resistant efforts is no collapses and no fires. Japan has suffered many devastating natural disasters. One example is the 1995 Great Hanshin-Awaji Earthquake, which resulted in roads being blocked by collapsed buildings and large-scale fires in built-up areas.



Tokyo has tried to learn lessons from these disasters. We have conducted a damage estimation of an earthquake hitting Tokyo directly. We have also designated emergency transport roads for rescue and relief, firefighting, etc.

During the Great Hanshin-Awaji Earthquake, buildings built using the old resistance standards were more vulnerable and more badly damaged. In Tokyo and throughout Japan we are working hard to earthquake-proof buildings, especially those alongside emergency transport roads. Specifically, this involves mandatory earthquake resistance assessments, financial assistance for assessments and reinforcement, advice from experts, door-to-door promotion by the government, and announcement of assessment results. Tokyo is aiming to ensure 100% of buildings alongside emergency roads have seismic resistance by 2026. Last year, the rate was 84.8%.

Tokyo is also promoting a ten-year project for promoting fire resistance. Tokyo has many neighborhoods with high concentrations of close-set wooden houses. These houses were built by people who migrated from the center of Tokyo to the

surrounding areas after surviving the Great Tokyo Air Raid. Tokyo's ten-year project was started to advance fire resistance for these projects. It was spurred by the risk faced by these houses as well as a heightened sense of urgency after the Great East Japan Earthquake.

There are three pillars to the project. These are establishing fireproofing zones, upgrading major city-planned roads to form firebreak belts, and creating an atmosphere conducive to building disaster-resistant communities.

Presentation <4> Tokyo: Kazuhiro Kobayashi

Tokyo is promoting various river projects to protect the population from storm surge and other water-related disasters. Tokyo faces various disaster risks, including earthquakes, typhoons and heavy rainfall. The typhoon season in Japan is in the summer months. Devastating typhoons include



Typhoon Kitty in 1949 and Typhoon Ida in 1985. There have also been cases of flooding due to localized heavy rain, such as that in 2005.

Because Tokyo is flood prone, the Construction Bureau is working to protect lives and property and to create a pleasant river environment. In the east, we implement storm surge/earthquake measures for lowland rivers. In central Tokyo we take flood control measures. In the mountainous west, we take sediment disaster control measures.

For lowland rivers, we implement floodgates that are centrally controlled to protect against storm surges. We have also reconstructed areas to create super levees. In terms of flood control measures, we have improved river channels by broadening them, dredging river beds, and reinforcing river banks. We have also improved regulating reservoirs and diversion channels.

At the time of Typhoon Kitty, over 137,000 houses were flooded. A similar level of typhoon, Typhoon Lan, hit in 2017 but no houses were flooded due to river flooding thanks to the measures we have taken. At the time of Typhoon Kit in 1966 over 41,000 houses were flooded due to rainfall. For Typhoon Lan in 2017, only 35 houses were flooded due to rainfall and no rivers overflowed.

In addition to increasing the disaster-resistance of river areas, we have also made great efforts to make river areas pleasant places to be for our residents.

Presentation <5> Wellington: Michael Mendonça

Wellington is the capital of New Zealand and a harbor. Wellington is highly susceptible to earthquakes. There is a 10% probability of a large earthquake in the next 50 years that will cause significant damage and casualties. A large earthquake hit the countryside near Wellington recently. This frightened the residents and



government, and the government urgently put in place measures to ensure that the buildings most susceptible to earthquakes are earthquake-proofed. The government provided a small amount of support but the building owners covered the majority of the costs.

Now it is working on the other buildings. There are over 600 worthy of concern. The city is focused on buildings by roads with high traffic and strategic routes used by emergency services. Again, the building owners are expected to cover the majority of the costs.

Wellington is working with the University of Tokyo to develop a city of seismic models. Until now, the city has focused on older buildings but has recently learned that some newer buildings, specifically those with concrete floors, are also highly susceptible to earthquake damage.

Buildings also need to be connected to horizontal infrastructure, so the city is investing in disaster-proofing such infrastructure as well. In particular, Wellington has many hills and is therefore susceptible to landslides. The city is also trying to drill for alternate water sources for the city's water security.

(2) Sub Session 3

Non-Structural Measures against Earthquakes

1. Time/Venue

May 21 (Tue) 13:00-14:30 Hyatt Regency Tokyo, Excellence, 27th Floor

2. Theme

Non-Structural Measures Against Earthquakes

3. Participant

<Speakers>

1. Mexico City 2. Santiago 3. Tokyo

Presentation <1> Mexico City: Diana Alarcón González

Mexico City is an earthquake prone region. There have been three major earthquakes in recent history resulting in large economic losses. There are many other risks in Mexico City such as major floods and wildfires, which partly cause poor air quality.



The guiding principles we follow include an open government, sustainability, and innovation. We are building government programs around different factors, such as hazards, vulnerability, and exposure of risks, which are determined by socioeconomic factors.

Poor people are at higher risk. Inequalities exacerbate risks and create a vicious cycle. There are different channels of influence of inequality on disadvantaged groups which create greater inequality. The rates of recovery from natural hazards reflect inequalities. The wealthy recover much quicker than the poor; the poor have less capacity to recover from disasters.

Mexico City is building a new policy framework; addressing the root causes of inequality. Mexico City needs to build resilience, including social resilience, which is building capacity among people and communities. A comprehensive policy framework to address inequality is based on six pillars and the concept of resilience is a part of all of them.

An increased investment in the poorest and most vulnerable areas of Mexico City occurred in order to reduce inequality; investment is mainly in infrastructure in transportation reconstruction, and green areas. Signature investments in order to address inequality include building community centers, building an integrated transportation system to connect the city periphery with the city center, systems for

rain collection, support for scholarships, universal pension, recovering parks and recreation centers, and employment creation.

Mexico City is building a city where all citizens have a right to a decent living, such as with education, health, housing, education, green spaces, good jobs, and the right to a resilient city. Mexico City recognized the rights of people across many dimensions, including having a resilient city. If risk is determined by vulnerability, Mexico City is addressing the root causes of that vulnerability. Many poor people are pushed to live in areas which are most at risk to disasters.

Presentation <2> Santiago: Ana Luisa Yañez Jofre Diana

Chile has one of the most natural risks in the world. The earthquake of 2010 made us reexamine and reevaluate where we live, the risks, and our priorities to prepare for risks. This preparedness must be implemented in our homes, neighborhoods, schools, and workplaces facing a variety of risks at hand.



Chile must respond accordingly to emergencies depending on the level of impact and its response capacity. Many buildings were damaged in the 2010 earthquake. Overcoming the damage and fear it created in our children has been a challenge. Earthquakes create a risk of collapsing churches and pose risks to pedestrians due to falling debris. The 2010 earthquake caused damage to cultural assets, schools, and residential buildings, including prefabricated stairs.

Flooding occurred in Santiago in 2016. Rivers and streets were flooded even though rivers had sufficient capacity for rain water. It is fundamental to understand the serious risks we are exposed to, and evaluate vulnerabilities and prepare for each threat. Santiago focuses on risk management at the local level through many actions, such as strengthening the communal Civil Protection System, managing information about risk disaster, teaching and learning about strategies, establishing alliances with public and private institutions related to risk management, and improving coordination with companies in basic services.

Santiago is also engaged in many activities to advance the National Disaster Risk Reduction Policy, such as strengthening institutionalism, strengthening monitoring and early warning systems, promoting the culture of prevention and self-care, reducing the underlying risk factors, and strengthening emergency response capacity. The mayor signed a commitment with the aim to contribute to collaboration which would hopefully create a variety of positive results. Santiago uses successful experiences from other countries, such as Japan.

Presentation <3> Tokyo: Koichi Arigane:

Japan has a history of earthquake disasters and is earthquake prone. The basic ideas behind measures against earthquakes include public assistance, self-help, and mutual help through large scale measures and initiatives.



There is a 70% chance of a large earthquake hitting Tokyo in the next 30 years. A major earthquake hitting Tokyo will have devastating consequences. The estimated damage of an earthquake directly hitting Tokyo is a death toll of approximately 9,700 and approximately 304,000 buildings completely destroyed.

Tokyo is being active in disaster preparedness by distributing a disaster management booklet as a tool for disaster preparedness. Also, Tokyo has prepared a disaster readiness guide reflecting women's perspective. It expresses women's viewpoints, such as what they should carry when they go out.

To cope with lifeline disruption, stockpiling daily supplies such as extra food and daily essentials is necessary; enough for three days. Communities have taken action to prepare for disasters in efforts to prepare disaster preparedness leaders and promote the development of communities and leaders. Tokyo has been promoting female leaders of disaster management in communities and workplaces; in past disasters, women have felt that their views were not heard and taken seriously.

Tokyo has prepared assistance for stranded people because it is encouraged for people not to move around after a disaster, and information regarding earthquakes in multiple languages in the form of an official website, including a hazard map, smartphone application in different languages, and disaster response training. Also, Tokyo carries out anti-terrorist drills.

(3) Sub Session 4

Non-Structural Measures against Storm and Flood Disasters

1. Time/Venue

May 21 (Tue) 13:00-14:30 Hyatt Regency Tokyo, Sky Room, 28th Floor

2. Theme

Non-Structural Measures Against Storm and Flood Disasters

3. Participants

<Speakers>

1. Bangkok 2. Hanoi 3. Rotterdam 4. Tokyo (Disaster Prevention Division)

Presentation <1> Bangkok: Prayoon Krongyoth

The main disasters affecting Bangkok are floods, fires, road accidents, hazmat, storms and bird flu. In 2011, Thailand was hit by heavy flooding during the monsoon season. The flooding spread over a wide area, including Bangkok. Many areas along the banks of the river running through the city were inundated. Traffic was also majorly disrupted.



To tackle future floods, the Bangkok Metropolitan Administration implemented a prevention and mitigation plan for dealing with storms and floods. The first step is to assess the situation and disaster risk, and to put in place disaster mitigation measures. The next step is to take responses, such as evacuations. Communication and information sharing among different departments is also important. Educational efforts are also made to raise awareness among citizens. In addition, training and capacity building are implemented.

The various departments of the city government study, analyze and plan for presentation and mitigation. The city has also developed a Flood Prevention Plan for 2019. Further emergency management measures are taken, including implementation of community-based risk management, incident management, and early warning and planning. After a disaster, rehabilitation and reconstruction efforts are made, including monitoring of health data, medical assistance, and rehabilitation and reconstruction of buildings.

The city monitors communication networks and disaster notification networks at all times to be prepared for a potential disaster. It also increases performance of control and coordination systems. Furthermore, the city has developed a database that it keeps up to date and ensures real-time access to.

As for human resource development, efforts are implemented at three levels: individuals, volunteers and people. Initiatives include training staff for public service and practicing of disaster drills. In addition, public awareness is also essential. It helps make communities safer and strengthens relationships with the public.

Bangkok is susceptible to disasters but the city government is determined to make it a base of socio-economic activity and a great place to live. Bangkok recognizes the importance of enhancing safety management to strengthen systematic processes and capacities, in order to minimize socio-economic damage and casualties in the case of disaster. It is Bangkok's goal to become a global safety city.

Presentation <2> Hanoi: Nguyễn Trọng Minh

Hanoi implements a variety of technical solutions to deal with floods and storms. Vietnam is hit by many typhoons each year. This has been exacerbated by climate change. The average rainfall is high and this can cause flooding. There were many cases of typhoons hitting Hanoi, causing flooding or the collapse of trees or structures.



We have learned many lessons from our experience and recognize the importance of strong systems. We have developed guidelines; prevention, combat and response solutions; on-site guidelines; assessment; and public awareness raising and exercises. We have also developed various flood-combat measures, such as catchment areas. Furthermore, we have developed plans for evacuation of affected areas and rehousing of displaced persons.

Some lessons we have learned are the need to build up a professional force for preventing and combating storms and floods, and mobilizing entire populations and society to participate in these efforts and recovery. We also recognize the importance of prevention and on-site measures. In addition, having guidelines is important. Moreover, we must determine the roles of all stakeholders. Additionally, we need forecasting and early warning systems. Lastly natural disaster prevention and combat should be strongly attached to socio-economic development plans and programs, such as infrastructure development.

Presentation <3> Rotterdam: Arnoud Molenaar

Rotterdam is working towards becoming a climate-resilient delta city taking measures in relation to water, spatial planning, climate change and



resilience. These efforts are increasingly involving the citizens of Rotterdam. The city has taken huge infrastructural measures to softer measures such as green infrastructure and awareness-raising.

Still Rotterdam, thinks that these efforts are not enough. Further efforts are needed to take the city to the next level. In addition to green rooftops, the city is planning a second layer with solar panels and other measures. Besides flooding, now Rotterdam has to deal with droughts as well, as a result of climate change. New, non-structural techniques are also required and being used, such as apps that help people identify cooler areas or water sources in the case of a heat wave, or that track rainfall.

Another factor to consider is the vulnerability of critical infrastructure. For example, the city is working with utilities companies to develop water-proof infrastructure. It is also introducing means of vertical evacuation.

In addition, the city is considering and aiming to enhance the overall resilience of communities to flooding. It has hoped that this will tie into social resilience measures as well. The city is trying to embed resilience into local communities by encouraging local residents and governments to embrace a resilience mindset. It has developed a self-assessment framework to help with such efforts.

Presentation <4> Tokyo: Motohiro Koga

Japan is vulnerable to flood disasters. Flat land accounts for only 30% of Japan's landmass and the country is highly mountainous. Japan is also often hit by typhoons. Over time, we have improved our flood prevention measures. However, in recent years, we have started suffering more heavy flooding incidents and torrential rains.



Over the past 30 years, the occurrence of torrential rain in Tokyo has tripled. Climate change has increased the intensity of torrential rainfall and the frequency of their occurrence. Tokyo may once again become vulnerable to flooding.

The eastern part of Tokyo has a low altitude, with some areas below sea level. This is vulnerable to rising tides and storm surges. If a typhoon sized 910 hPa were to hit Tokyo, it could result in the evacuation of approximately 2.55 million people from the Greater Tokyo area. In preparation of a wide-area evacuation, Tokyo is working to secure wide-area shelters and secure ways to evacuate areas and guide evacuees.

Tokyo has also developed the Tokyo “My Timeline” Kit to help citizens understand disaster risk management measures and to take the appropriate actions in the case of a disaster. The kit tells people how to assess the situation and what actions to take in the face of different disasters. It is organized chronologically. Tokyo has also developed a digital edition. In addition, it is now developing a digital flood risk map.

(4) Mayoral Round Table Meeting

1. Time/Venue

May 21 (Tue) 15:00-17:45 Hyatt Regency Tokyo, Crystal Room, B1 Floor

2. Theme

Effective Disaster Risk Reduction in Urban Management
- Common Responsibilities and Unique Initiatives

3. Participants

<Moderator>

Ms. Mami Mizutori (Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction, and Head of United Nations Office for Disaster Risk Reduction (UNDRR))

<Speakers>

1. Yuriko Koike (Governor of Tokyo)
2. Lianne Dalziel (Mayor of Christchurch)
3. Anies Baswedan (Governor of Jakarta)
4. Nguyễn Văn Sửu (Vice-chairman of Hanoi People's Committee)
5. Emmanuel Gregoire (1st Deputy Mayor of Paris)
6. Ahmed Aboutaleb (Mayor of Rotterdam)
7. Hee-sun Jin (Vice Mayor of Seoul)
8. Shukhrat Khudoykulovich Turdikulov (Deputy Mayor of Tashkent)

Yuriko Koike (Governor of Tokyo)

Tokyo and Japan are at high risk of being hit by disaster. Tokyo's three pillars of disaster prevention emphasizes support in three areas. One, ko-jo, two, ji-jo, and three kyo-jo. Ko-jo means - jo means assistance or support. Ko-jo meaning public assistance. And ji-jo meaning self-help. And kyo-jo meaning mutual help. Public assistance means physical measures taken by the authorities in times of disaster and self-help involves people protecting themselves and mutual help refers to residents helping each other.

Measures against flooding are undergoing; building underground reservoirs under parks and other areas. They are capable of retaining some flood water. The levee and flood gate system is being made more robust.

Self-help and mutual help is vital during a disaster. From the 1995 earthquake, the self-help and mutual help assistance was far higher than public assistance. From the 2011 earthquake, transportation was paralyzed, and there was food and water



shortage. As a result, Tokyo has disseminated booklets to enhance self-help and mutual help, and information from women's perspective. Tokyo also uses digital tools such as the Tokyo Amesh website including real-time rainfall mapping. Disaster preparedness information is also available by a smartphone application. I place great importance on the phrase "Be prepared." It is my hope that we can learn from each other and help our cities be safer.

Lianne Dalziel (Mayor of Christchurch)

We have had various natural disasters, and we need to plan and prepare for the impacts of climate change. There is an essential ingredient to response and recover which is: to have everyone engaged and prepared. There is a need to ensure active participation occurs before disaster strikes. Cities are coming together to collaborate on vital issues, such as the U20, 100 Resilient Cities, and the Global Parliament of Mayors. It is at the city level and town level where we can best prepare for what will happen in the future.



The cities which could recover the best were ones that were prepared. Students volunteered to help recovery and since then have formed the most popular university club. Communities who thrived already had high levels of social capital and they were ready to invest in their own recovery.

In today's world, we need to form a connection with trusted networks. In the honeymoon period after a disaster, it is great that many people come together to share ideas. However, it must be kept in mind that honeymoons come to an end, yet support should not.

Resilient communities are the antidote to emerging challenges. Building resilient communities is not something that governments can do for communities, neither is it something that can be done only by communities; all have roles in a community network. The wisdom of the community should be combined with the knowledge of the experts; that is why trust is the central point to resilience.

Anies Baswedan (Governor of Jakarta)

Jakarta is faced with many natural disaster risks. I will focus on floods in Jakarta. Jakarta has three fronts of floods; we are in a flat coastal areas so rain in the highlands flood Jakarta; Jakarta has experienced land subsidence in the coastal areas; and rains happening



in Jakarta. With these three issues, sometimes they happen at the same time and there are three fronts to manage at the same time. The management approach for the highlands is to build reservoirs and dams upstream, inviting NGOs and other organizations to participate in naturalization of our rivers, building more than 100 parks next to rivers which can serve as retention pools from rivers, and we are inviting individuals to participate in mitigating risks, and preparing citizens to prevent and handle disasters.

To deal with rain, we are giving tax incentives for houses that build vertical drainage. We plan to build millions of vertical drainage systems across Jakarta in order to make sure water is not being drained into the rivers but into the soil.

With regards to the sea level, the dams we are building will help us tackle the rising sea level.

The progress with these approaches has been successful and we hope they will ensure resilience in the future.

Nguyễn Văn Sửu (Vice-chairman of Hanoi People's Committee)

High heat perhaps creates another risk to Hanoi. Hanoi has faced great flooding recently. One of the worst case scenarios would be the breakdown of levies and dykes, and then water pollution. Another risk is building fires, explosions and collapse. In old Hanoi, there are many old buildings risking collapse. Technology transfer is another approach for management and control.

The future policies and plans include prevention, response, and consequence setting; and enhancing education in the community



Emmanuel Gregoire (1st Deputy Mayor of Paris)

I will tell you about the Paris resilience strategy. Urban resilience is the resilience of the territory as a whole including everything such as infrastructure. We imagine these resilient cities to continue to be strong. At the same time, cities must manage socioeconomic issues.

Resilient territory is a territory that is flexible, and integrated enough to fight disaster. Qualities of a resilient system include integration, flexibility and resourcefulness, among others.



Paris has six main resilient challenges which include social inequalities and exclusion. Homelessness has increased in Paris in the recent years. Also, terrorist attacks and securities, risks related to the Seine River and water, air pollution, climate change, and governance. It is a shared vision for Paris.

Be confident in the future. Officials and individuals are here to find solutions to these daunting challenges.

Ahmed Aboutaleb (Mayor of Rotterdam)

We have been working with cities around the world with similar issues as us. We have flooding from rain and mountain runoff. The Netherlands is six meters below sea level, so we have to be excellent at water prevention. Our dykes are prepared to deal with large amounts of water; that is why we impose water tax for the Water Board of the government.



The Netherlands takes various creative measure to deal with water such as creating a rowing lane for rowers to practice. The future will be to build an adaptive city because the water will continue to come; we cannot stop it. Most of our dykes are good but not all, that is why we need to invest 1 billion euros per year, which is a huge amount of money for any country to pay. Our petrochemical factories are at risk as well. Terrorism is also a risk that we need to prepare for. In Rotterdam, we have 130 million euros a year and ample staff members to deal with disaster management. Resiliency is more than just that. We also have to deal with inequality.

Hee-sun Jin (Vice Mayor of Seoul)

Seoul is a megacity and home to 10 million people. It is a large number of people, and the infrastructure is also large. In the 1950s, Seoul's infrastructure was reduced to nothing and now has been rebuilt and developed. However, infrastructure created in the 70s is deteriorating, with bridge collapse, sinkholes, and landslides.



Seoul plans to utilize IoT, and big-data analysis to realize smart and safe city. By analyzing big data and making predictions, we will be able to lower maintenance costs and prolong the life of structures. We will create a database by data collection. We will install sensors in roads in order to collect data around road deterioration. This information is directly linked to the Mayor's office and available to the public on

the internet. Remote tendon monitoring system detects friction in wires of bridge supports.

Seoul has implemented a smart flood prevention system. This enables us to anticipate heavy rainfall, and then we can quickly drain rain water rapidly. In addition, city-to-city cooperation is essential in making cities safer.

Shukhrat Khudoykulovich Turdikulov (Deputy Mayor of Tashkent)

(Presenter: Yusufbek Erkinov)

To reduce the risk of disasters, offices for emergencies were established. Most emergencies of Tashkent are as a result of earthquake and toxic contamination. Regarding monitoring and determining threats, many poisonings occur by violation of regulations, such as illegal canning techniques. Emergency fires in residential places can be as a result of cigarettes or violation of gas line equipment. Training individuals in the community is important to enhance preparation. The city center is subject to earthquakes, so training is important and we are undertaking it.



4. Tokyo Declaration

Governor Koike proposed the creation of the Tokyo Declaration as the outcome of this Forum. Mr. Shigeru Kobayashi, Deputy Director General for Crisis Management, offered an explanation about the details of the declaration, which was unanimously adopted after an exchange of ideas.

Tokyo Declaration on Enhancing Urban Resilience

The Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted in 2015 at the Third UN World Conference on Disaster Risk Reduction, as an international guiding instrument for disaster risk reduction through 2030. The aim of the Framework is *“the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.”* Nations, local governments (including cities), international organizations, and other stakeholders are tasked with implementing its four Priorities for Action, 1) understanding disaster risk, 2) strengthening governance to manage disaster risk, 3) investing in disaster risk reduction for resilience, and 4) enhancing preparedness for effective response and to build back better in recovery. Cities, which directly face the risk of damage and losses from earthquakes, climate related hazards including storms which are intensified by climate change, and other hazards, will be increasingly expected to play a specific and proactive roles to build resilience.

As the leaders and representatives of the world’s capitals and/or major cities, we have made determined efforts, according to the circumstances of our respective cities, to address the issue of disasters caused by natural and human caused hazards, which can strike any time. Despite the differences in regional characteristics, we believe there are also many best practices that we can share and learn from each other.

At the Urban Resilience Forum Tokyo, held in Tokyo on May 20-22, 2019, we discussed the responsibility that cities share and various measures to ensure urban resilience, reduction of disaster and climate risks, and achieving sustainable development with the aim for cities to better protect the lives and property of their citizens from the impact of disasters.

The following shared vision was adopted at the forum:

Our Vision

- We aim to realize a shared concept of the “mainstreaming of disaster risk reduction” for the creation of resilient cities.
- We strive to increase understanding of disaster risk, not only by public institutions, but by all citizens - including women, youth and children, people with disability, the elderly and culturally and linguistically diverse communities, as well as nongovernment stakeholders - and the strengthening of disaster resilience per each group’s respective needs, perspectives, and circumstances.

To realize this vision, we, the leaders and representatives of the world’s major cities, have agreed to the following:

Initiatives to Realize the Vision

- We will enhance urban resilience to protect the lives and property of citizens as a priority issue and will actively consider and implement globally accepted tools and measures, taking into account the geographical characteristics, social and economic environments, and other attributes of our respective cities.
- To enhance resilience to disasters, we will develop infrastructure in accordance with the disaster risks specific for each city, such as the earthquake resistant structures, and flood-control measures.
- For the implementation of measures, we will pursue a comprehensive program that includes raising awareness and interest among citizens, working in cooperation with private companies in possession of exceptional technologies, formulating effective systems and policies, and coordinating among multi sectoral agencies, in order to enhance the understanding of disaster risk throughout communities, encourage individual and cooperative measures, and mainstream disaster risk reduction and resilience into the development of our cities.
- Acknowledging the importance of community leadership, we will design and develop support frameworks that simplify bureaucratic processes, provide appropriate technical expertise and otherwise enable community groups to engage in understanding of risk and undertaking adaptive planning so they are better prepared for the future. Support arrangements and training programs that build the capability of community leaders will also be developed and shared.
- We will share best practices in order to enhance the overall disaster risk management and resilience capabilities of cities. Also, when disasters occur, we

will provide mutual assistance to support a swift and more effective recovery to build back better from disasters.

Participating Cities

Tokyo, Bangkok, Buenos Aires, Christchurch, Durban, Hanoi, Jakarta, Mexico City, New Orleans, Paris, Rotterdam, Santiago, Seoul, Tashkent, Tirana, Ulaanbaatar, Wellington

May 21, 2019

Tokyo Declaration on Enhancing Urban Resilience Attachment Regarding Mutual Support

This attachment, in accordance with the Tokyo Declaration on Enhancing Urban Resilience adopted at the Urban Resilience Forum Tokyo held in Tokyo in May 2019, is intended to raise awareness for mutual support and cooperation among the participating cities with regard to disasters that can be expected to occur in the future.

The support and cooperation among the participating cities are presumed to comprise the following and may be voluntarily provided or accepted as per the free will of the participating cities.

- 1) Provision of information that contributes to urban resilience by reducing disaster risk or mitigating the potential impact of a disaster, and contributes to recovery
- 2) Presentation of funds for disaster relief
- 3) Dispatch of professional staff and other human resource support
- 4) Provision of relief supplies

The support and cooperation provided per this attachment will be determined through direct coordination between the cities offering aid and individual cities stricken by disaster. There is no obligation of support or cooperation.

May 21, 2019

5. Special Program for URF Participants

(1) Riding the Tokyo Fire Department Virtual Reality Truck to experience earthquake shakes and so forth

First, Shigeru Kobayashi, Deputy Director General for Crisis Management, Tokyo Metropolitan Government made an address at the venue Hyatt Regency. Then, the participants saw the film about disaster prevention, and observed the model exhibits on seismic countermeasures for sewer pipes, followed by an explanation of My Time Line. After that, the applicants tried out a virtual reality disaster prevention truck.



Presentation by Shigeru Kobayashi, Deputy Director General for Crisis Management



Observing exhibits



Explanation on My Time Line



Test ride of VR BOSAI, a disaster prevention truck

6. Press Conference

At the press conference, it was reported that how informative the forum was a result of as a result of the presentations by each participating city and active discussions. Also, the Tokyo Declaration adopted unanimously on the previous day was presented. The press conference concluded with a group photography of representatives from each participating city.



Yuriko Koike, Governor of Tokyo



Mami Mizutori, Moderator



Group photo

7. Reception

(1) Welcome Reception

A welcome reception hosted by two Vice Governors was held at the Hyatt Regency on the evening of May 20th.

(2) Farewell Reception

A farewell reception hosted by Governor Yuriko Koike was held at Happo-en on the night of May 21st.

(1) Welcome Reception



Greetings by Vice Governor Junko Inokuma



Toast by Vice Governor Junko Inokuma



Menu (vegetarian dishes)



Tokyo Fire Department Band



Enjoying the performance by
Tokyo Fire Department Band



Pleasant talk with other
participants



Pleasant talk with other participants



Greetings by Vice Governor
Mitsuchika Tarao

(2) Farewell Reception



Greetings by Governor Yuriko Koike



Greetings by Osaka Mayor
Ichiro Matsui



Furoshiki demonstration



Reception



Karate demonstration



Reception



Learning how to use furoshiki



Lantern making corner

8. Site Tour

(1) Course A

Participants visited the underground regulating pond in Kanda River Area/Loop 7 and Roppongi Hills.

(2) Course B

Participants boarded the Shin Tokyo Maru and visited teamLab Planets TOKYO.

(1) Site Tour Course A



Group photo at underground regulating pond facility



Explanation at underground regulating pond



Explanation with diorama



Explanation near Roppongi Hills

(2) Site Tour Course B



Group photo in front of Shin Tokyo Maru



Explanation onboard a ship



Tour of teamLab Planets TOKYO



Tour of teamLab Planets TOKYO

(3) Tohoku Area Study Tour

On May 23rd, participants visited the Otsuchi Cultural Exchange Center in Iwate Prefecture and took part in an exchange activity with students from Otsuchi High School. On May 24th, participants took part in a tour to Kamaishi Port and inspected floodgates.

<Outcomes of Tohoku area study tour, Urban Resilience Forum Tokyo>

May 23rd (Thu)

15:00-16:00 Otsuchi Cultural Exchange Center

- Participants met up with Ms. Kamitani from Oraga Otsuchi Yume Hiroba, in front of the center. As the participants looked at a model of the town at the time of the disaster, she talked about the damage in Otsuchi Town at the time of the disaster and the path to reconstruction.
- The only place to evacuate was on top of a hill. But because there was only one narrow road filled with cars trying to evacuate on the day that the earthquake struck, many people were found who had died in their cars after being unable to evacuate and then swept away by the tsunami.
- Since the initial tsunami warning was reported to be three meters, the mayor and senior officials of Otsuchi Town thought it would not exceed the 6-meter floodgates. They did not evacuate and the tsunami struck as they were having a meeting in front of the government building on what countermeasures to take. The mayor and about 70% of the senior officials perished, leaving no one behind to make decisions and the situation in the height of confusion. In addition, the fact that the staff in town office did not evacuate sent the wrong signal to the residents that they did not need to evacuate themselves.
- During reconstruction, the area along the coast, which had been residential, was designated as a non-residential area. People who had lived there were conflicted by the choice of moving to the inland areas or returning back to the area. The elderly who were unable to rebuild their homes on their own moved into apartments and housing prepared by the town. Those who could rebuild their homes on their own moved inland, causing the population aging in the town.

16:15-17:15 Otsuchi High School: Reconstruction Study Group

- Students from the Reconstruction Study Group at Otsuchi High School explained in detail about their activities.
- Their activities include carrying out the regular fixed-point observation throughout the town, creating records of the state of reconstruction and playing with children.

- Since the earthquake, the town has no parks with playground equipment and children cannot play outside. It was mentioned that, in contrast, parks and community centers were first constructed in New Orleans in order to encourage residents to return.
- Participants from Christchurch made an impromptu statement that the city was also suffering damage from flooding.

May 24th (Fri)

9:00-10:25 Tour of breakwater at the entrance to the bay and floodgates

- Participants were able to head out by boat to the entrance of the bay and were given an explanation as they walked on the breakwater.
- Before the Great East Japan Earthquake, the breakwater was listed in the Guinness Book of World Records as the deepest breakwater in the world (-63 meters). Unable to endure the strength of the tsunami after the earthquake, the breakwater broke in areas, but helped to slow down the speed and reduce the height of the tsunami.
- The breakwater was rebuilt after the earthquake. However, the participants were informed that the breakwater is not intended to completely protect against a tsunami; rather, it has been built to give people time to evacuate. For this reason, it is important to be conscious of the need to flee quickly when a major earthquake strikes.
- The participants were informed that the floodgates will now be remotely controlled because of the sacrifice of the firefighters who worked to close the floodgates at the time the earthquake struck.

10:50-11:45 Tsunami Memorial Hall

- At the museum, the raconteur, who had brought school children with her when she escaped from the tsunami at the age of 15, spoke about the situation at the time of the earthquake.
- The museum was constructed as a disaster prevention center at the site where there was a building that had played a role as a public hall. When the earthquake hit, many people evacuated there and were killed by the tsunami.
- Facilities for people evacuating from the tsunami were located in different places, such as on top of hills, etc. However, there were people who said that it would be difficult for the elderly to walk up hills, so evacuation drills, which were carried out one week prior to the disaster, were not conducted at the actual evacuation facilities, but were instead carried out at the disaster prevention center (Drills were conducted while the city officials informed people that the facility was not the actual evacuation

center). Despite the fact that it was not the actual evacuation shelter, many people came to the center to evacuate as they thought they would be safe because it had been used during the drill.

- Since the raconteur herself was at school at the time of the disaster, she evacuated immediately to the mountains while also working with the teachers to help the students at the nearby elementary school, saving their lives.
- In Kamaishi City, high school students and workers leave the city during the day, leaving only the elderly and children in junior high and younger. For this reason, junior high school students had been instructed to help and guide those around them to evacuate at the time of a disaster, which saved many lives as a result.
- After listening to these stories, participants from invited cities spoke about what they learned about the significance of educating students about evacuation procedures at schools and that they would like to bring this information back to their cities.
- The participant from New Orleans said that when Hurricane Katrina hit the city, the order to evacuate by the mayor was delayed, which impeded the evacuation of the city's residents and isolated the city after it became completely submerged. The participant said that he felt it was extremely important to build awareness on each and every person evacuating on their own.

12:00-13:00 Kamaishi Unosumai Memorial Stadium

- Located just next to the Tsunami Memorial Hall, the Kamaishi Unosumai Memorial Stadium was built as one of the stadiums where matches for the 2019 Rugby World Cup will be played. At the time of the tour, construction work was being carried out on a temporary stand for the World Cup.
- The stadium was constructed in the location of an elementary and junior high school at the time of the earthquake. In preparation for a disaster, earthquake-resistant water storage tanks have been installed underground and forest roads are being maintained for emergency evacuation sites.
- Officials from Kamaishi City said that they wanted to have an opportunity to show the reconstruction situation and express their gratitude to people around the world who supported the area after the disaster by hosting matches for the Rugby World Cup.
- The participant from New Orleans said that after Hurricane Katrina struck New Orleans, the city hosted the Super Bowl to promote reconstruction. The speed of reconstruction accelerated as many people were able to see the situation in New Orleans through TV broadcasts. He said that it was a great choice to hold the Rugby World Cup in Unosumai.

13:10-14:10 Horaikan

- Participants visited the Nebama coast where the tsunami hit at the time of the earthquake.
- The proprietress of Horaikan spoke to the participants about her experience in the tsunami and reconstruction efforts.
- Horaikan had been strongly built with reinforced concrete in order to protect people's lives in the event of a disaster and was regarded as a place to evacuate by nearby residents during an emergency.
- However, as the building was hit by an inordinate level of shake during an earthquake and she remembered that legend has it the people should run to the mountains in the event of a strong earthquake, the proprietress gathered the guests and residents who evacuated to Horaikan and guided them in fleeing to the mountains, saving countless lives. Although she was swept away by the tsunami at the end of the line, she survived.
- During the reconstruction efforts after the disaster, she was asked how she would like reconstruction to move forward. At that time, she had no vision and began by drawing pictures (her vision) about what she wanted to be done. Although now she has a vision of turning the residential area into a place where people can enjoy sports, since there was no prior discussion about what kind of reconstruction efforts should be done in the event of a disaster in the area, she realized that it would be difficult to revise the government's plan after the fact.

<Impressions about the entire tour>

- The participants were extremely interested in the stories of people who actually experienced the disaster.
- There were three participants on this tour. These three people remarked that they had a very meaningful experience because it is usually not possible to be able to see and hear so much information and that it would have been worthwhile to take part in more tours.

Urban Resilience Forum Tokyo

Photos from Tohoku Area Study Tour

<May 23, 2019>



Talk at Otsuchi Cultural Exchange Center



Explanation about damage from the tsunami from the hilltop of Otsuchi Town



Exchange with students at Otsuchi High School



Commemorative photo with high school students

<May 24, 2019>



Ship to breakwater at bay entrance



Explanation on the breakwater



Floodgate under construction



Explanation about floodgates by
Iwate Prefectural staff



Explanation at Tsunami Memorial
Hall



Explanation about the state of the
area after the tsunami hit



Kamaishi Unosumai Memorial Stadium under construction



Commemorative photo on pitch



Tour of Nebama coast



Commemorative photo at Horaikan

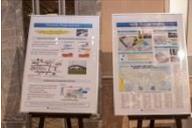
9. Exhibit

Welcome Reception

	Exhibits and performances	Details	Department in charge		
Staging	Performance by Tokyo Fire Department Band	Performance after toast. Played 2 numbers-Fireman Spirit March and Tokyo Olympic March	Tokyo Fire Department	2 pieces	
	Bosai-kun character costume		Disaster Prevention Division	1 appearance	
	Menu using ingredients from disaster-affected areas	Hotel menu	Hotel		
Exhibits	Olympic and Paralympic Games, rugby	Rugby balls, rugby shirts, Olympic/Paralympic Game mascots (2 large mascots), PR video for reconstruction for Games	Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation		
	PR for reconstruction of disaster-affected areas (TMG)	Panel display, DVD Recovery/reconstruction support for the Great East Japan Earthquake by TMG	Disaster Recovery Support Division	4 panels	
	PR for reconstruction of disaster-affected areas (Iwate Prefecture)	Panel display	Reconstruction Promotion Division, Bureau of Reconstruction, Iwate Prefecture	1 panels	
	PR for reconstruction of disaster-affected areas (Miyagi Prefecture)	Panel display	Earthquake Disaster Reconstruction Promotion Section, Earthquake Reconstruction and Planning Division, Miyagi Prefecture	1 panels	

	PR for reconstruction of disaster-affected areas (Fukushima Prefecture)	Panel display, DVD	Revitalization and Comprehensive Planning Division, Planning and Coordination Department, Fukushima Prefecture	1 panels	
	Disaster-prevention stockpile display	Display of stockpile	Bureau of General Affairs, TMG	2 tables	
	Fire-fighting equipment display	Drones, detection robots	Tokyo Fire Department	1 table	
	Water dispenser	Provision of drinking water at water dispenser	Bureau of Waterworks, TMG		

	Exhibits and performances	Details	Department in charge	Number	
Exhibits	Panels by each department	Panel display	Bureau of Port and Harbor, TMG	3 panels	
		Panel display	Disaster Prevention Division, TMG	1 panels	

		Panel display	Bureau of Tokyo 2020 Olympic and Paralympic Games Preparation, TMG	3 panels	
		Panel display	Bureau of Sewerage, TMG	3 panels	
		Panel display	Bureau of Construction, TMG	2 panels	
		Panel display	Office for Strategic Policy and ICT Promotion, TMG	1 panel	
		Panel display	Bureau of Urban Development, TMG	1 panels	
		Panel display	Bureau of Waterworks, TMG	3 panels	
Other	Disaster-prevention pamphlets	Setup of pamphlets	Bureau of General Affairs, TMG	120 pamphlets	
	Tokyo PR brochures	Setup of pamphlets	Overseas PR, Office of the Governor for Policy Planning, TMG	30 pamphlets	

Roundtable

Exhibitions and performances	Details	
Robot (Sota)	Information and guidance for participants	
Digital globe	Display	

Farewell Reception

Exhibitions and performances	Details	
Furoshiki demonstration	Demonstration by the Governor of Tokyo after opening remarks	
HERASEON	Display, interactive experience	
Robot	Guide robot	

Special Programs

Exhibitions and performances	Details		Coordinator
Two models	Display		Bureau of Sewerage, TMG
My Timeline	Display		Disaster Prevention Division, TMG
Disaster-prevention app	Display		Disaster Prevention Division, TMG
VR vehicle	Interactive experience		Tokyo Fire Department, TMG

10. Other conference co-held with Urban Resilience Forum Tokyo

U20 Mayors Summit

U20 Mayors Summit	Urban Resilience Forum
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Day 1 (Monday, 20 May)

Venue	Time	Program
Hayatt Regency Tokyo	18:30 20:00	Welcome Reception (hosted by two of Tokyo's vice governors)

Day 2 (Tuesday, 21 May)

Venue	Time	Program	Venue	Time	Program	Venue	Time	Program		
Hilton Tokyo										
Kiku (4th Floor)	9:15 9:25	U20/URF opening remarks , Ms. Yuriko Koike, Governor of Tokyo								
	9:25 9:40	U20 opening remarks , C40/UCLG								
	9:40 10:00	Keynote speech Dr. David M. Malone, UNU Rector								
	10:15 11:00	Session 1 : Climate Action Moderator: Dr. Riyanti Djalante, Academic Programme Officer, UN University								
	11:05 11:50	Session 2 : Circular Economy Moderator: Mr. Atsushi Koresawa, Director, Regional Office for Asia and the Pacific, United Nations Human Settlements Programme (UN-Habitat)								
Sakura & Fuji (3rd floor)	11:50 12:45	Lunch								
Kiku (4th Floor)	12:45 13:30	Session 3 : Social Inclusion and Integration Moderator: Ms. Maitreyi Bordia Das, Manager, Social, Urban, Rural and Resilience Global Practice, World Bank				Excellence (27th Floor)	13:00 14:30	Sub Session 3 Non-Structural Measures Against Earthquakes	Sky Room (28th Floor)	Sub Session 4 Non-Structural Measures Against Storm and Flood Disasters
	13:45 14:30	Session 4 : Sustainable Economic Growth Moderator : Mr. Jeff Merritt, Project Head, Internet of Things, World Economic Forum								
	14:45 15:30	Session 5 : Gender Equality Moderator: Ms. Kae Ishikawa, Director of UN Women Japan Liaison Office								
Crystal Room (B1 Floor)	15:00 17:15	Mayoral Round Table Meeting (moderated by Ms. Mami Mizutori, Special Representative of the United Nations Secretary-General (SRSG) for Disaster Risk Reduction, and Head of United Nations Office for Disaster Risk Reduction (UNDRR))								
	17:15 17:45	Meeting to finalize Tokyo Declaration by the mayors								
Hyatt Regency Tokyo										
Excellence (27th Floor)	10:00 11:30	Sub Session 1 and 2 Structural Measures Against Earthquakes and Flood Disasters								
Heian (B1 Floor)	11:30 13:00	Lunch								
Happoen Jour/Nui (1st Floor)										
	19:30 21:00	Farewell Reception (hosted by the Governor of Tokyo)								

Day 3 (Wednesday, 22 May)

Venue	Time	Program	Venue	Time	Program
Hilton Tokyo					
Fuji (3rd floor)	8:00	Breakfast meeting door open			
	8:30 9:30	Session 6 (Breakfast Meeting) : SDGs Moderator: Mr. Norichika Kanie, Professor, Graduate School of Media and Governance, Faculty of Environment and Information Studies, Keio University			
Sakura (3rd floor)	9:45 11:05	Strategic Meeting for Mayors			
Kiku (4th Floor)	11:20 11:40	Announcement of Tokyo Declaration on Urban Resilience			
		Announcement of U20 Communique			
Sakura & Fuji (3rd floor)	12:00 13:00	Lunch			
Hyatt Regency Tokyo					
Sky Room (28th Floor)	9:30 11:00	Special Program for URF Participants - Ride the Tokyo Fire Department Virtual Reality Truck to experience earthquake shakes, images, and smells - (tentative)			
PM Site visit					
23 May to 24 May		Study tour in Iwate-Kamaishi			

