City Resilience and Role of Local Government in the Asia Pacific Region

Chair	**Luis GALLEGOS** Senior Fellow, UNITAR
Moderator	**JEONG Ewijeong** Program Officer, UNITAR CIFAL Jeju
Keynote Speaker	**KIM Sungdai** Officer, Ministry of Public Safety and Security
Discussant	**PARK Heekyung** Director, KAIST Initiative for Disaster Studies
	MOON Kyung-jong Disaster Response Division Office, Jeju Special Self-Governing Province
	Madelaine Yorobe ALFELOR Mayor, Iriga City, Philippines
Rapporteur	**KIM Bong-hyun** Deputy Managing Editor, Jeju Sori

— Luis GALLEGOS Many cities and states face natural disasters and prevention issues. The international conference in Sendai on the theme of natural disasters in 2015 still draws global attention. UN member states adopted a 2030 sustainable development agenda in September, 2015. This comprehensive and reformative agenda suggested strategic directions as regards city resilience and human habitats in connection with climate change and disaster risks. In this context, to build the capacity to address natural disasters and climate change is a crucial task for countries in the Asia-Pacific region, in particular, as 1,625 disasters, 42 percent of the total worldwide, occurred in this region, taking the lives of about 0.5 million people. The region also sustained huge economic damages, amounting to 500 billion dollars. This is a figure surpassing 45 percent of the total damages globally. However, local governments have paid less attention to natural disasters. I hope this session might provide the opportunity to draw more attention to disasters and to discuss effective measures to lessen their risks, particularly in the cities of the Asia-Pacific region.

— KIM Sungdai I would like to talk about the Sendai Framework and "Making Cities Resilient(MCR)" campaign. The Sendai Framework was adopted at the Third UN World Conference on Disaster Risk Reduction in Sendai, Japan on Mar. 18, 2015 and endorsed at the UN General Assembly three months later. The framework is designed to make the world safer for the next 15 years and urges actions to reduce the risks of man-made and natural disasters. The main points of the framework are: first, the shift from disaster management to disaster risk management; and second, a people-centered preventive approach to disaster risks and the manifestation of primary responsibility of states for Disaster Risk Reduction(DRR). The framework also called for shared responsibility for DRR with stakeholders, and expanded the scope of the disaster to man-made disasters and bio-hazards.

It has seven global targets, 13 guiding principles and four priorities for action. It also specified the roles and duties of states and local communities as well as stakeholders. The UN's Sustainable Development Goals(SDGs), which succeeded the Millennium Development Goals(MDGs), a set of eight measurable goals which were signed in September 2000, have 17 "global goals" with 169 targets. The SGDs and the Sendai Framework are closely related to each other, both having the same goals to expand policies to reduce disaster risks in every state and city.

Now, I would like to introduce to you the "Making Cities Resilient" campaign, joined by 3,500 cities around the world, including 165 local governments in South Korea. Cities have many systems, and it is important to systematically share disaster information and make connections between them for resilience. Cities face a growing number of pending issues, ranging from urban sprawl to inequality, international immigration, poverty, population growth and flood damages. The United Nations Office for Disaster Risk Reduction(UNISDR) set up a ten-point checklist to become a resilient city. It was designed to assess cities' resilience based on the checklist on the urban environment with such indexes as vulnerability to flooding and the solidity of the ground. It helps cities assess themselves and complement their weakness. Strengthening the resilience of cities is the goal shared by the Sendai Framework and the Making Cities Resilient campaign.

— PARK Heekyung I would like to discuss urban restoration and the role of local governments. All social phenomena, including disasters, are inter-connected. This inter-connectivity will be more complicated in the future. When it comes to disasters, we should look into the system of systems. Accidents do not occur because of a single cause. They occur from many factors combined, as do disasters. Therefore, we should consider many factors in order to manage disasters, and if we do not, we will constantly live with the danger. It is the connectivity that counts. When we discuss natural disasters, we should take a systematic approach to them, analyzing all factors. Resilience is about this kind of systematic approach. Our ecosystem has evolved through billions of years, and it has suffered destruction on diverse occasions. The continuation of the ecosystem until now was possible thanks to its resilience. This diversity-based ecosystem has had the greatest power of resilience, sustained for billions of years.

Resilience is often called the ability to spring back into shape, but it is also an ability to go forward to the next stage, or an idiosyncratic nature to do so. The ability to go forward to a better stage is resiliency. The same goes for cities. Resilient cities improve themselves to provide a better life for their people. It is not that only the central or local governments are responsible for disaster management. The private sector may have a greater role in this. Citizens can assume certain roles as able players. It is more important to give them proper roles than just assembling them. It is capacity building, itself. In contingencies, they have to play functional roles. They should construct networks and get feedback from each other. If all of them are connected, they can actively engage in work. With this kind of function, cities acquire a resilient system.

Then, we have to think about how to make the most of the problem-solving capacities and strengthen resiliency when we talk about resilience in the concept given by the Sendai Framework. Restoring resilience requires an integrated management and integrated strategies. We should make a paradigm shift with regard to disaster management. We have to change the current paradigm to have a better resilience and note its connectivity with disasters. It is easy to make a network, but it is difficult to help people maintain their relationships, because they always change. The key to relationships lies in continuity. We have to persuade people to participate in the network. It is important to maintain their relationships. How to help them participate in the resilience project is crucial for urban resilience.

— MOON Kyung-jong My presentation today is about Jeju Special Self-Governing Province's policies for safe cities. First, I will present the facts about Jeju Island, damage from natural disasters, visions and goals for safety management, and safety measures of the province. Jeju Special Self-Governing Province is an international free city and pursues to become

a Northeast Asian hub that is reached within a two-hour flight from 60 cities with populations of more than one million. With a world renowned natural environment, the island has unique advantages as the only self-governing province of Korea. The size of the island is three times that of Seoul; 1.7 times of Hong Kong; and 2.7 times of Singapore. Its population was 661,000 people as of 2016; its budget for 2017 is 4.5 trillion won; and tourism revenue amounted to 4.4 trillion won as of 2015. Primary and secondary industries account for 28 percent of the island, with tertiary industries taking 72 percent. These statistics show that Jeju Island has a tourism-oriented industrial structure.

Modern society sees the damage from disasters increasing. Climate change, urbanization and industrialization have raised the frequencies of storms, heavy snowfall, torrential rain and earthquakes since the 20th century. Disaster sizes are also growing, and it is becoming difficult to distinguish natural disasters from social ones. The disasters on the island for the ten years from 2001 claimed ten lives, leaving 998 victims and 269 billion won in property damage. The damage per capita on the island was 1.2 times as much as the national average, but the damage per unit area was 0.7 times the average. Great damages were wreaked by Typhoon Nari in 2007, Typhoon Rusa in 2002 and Typhoon Maemi in 2003, indicating that the island is located on the route of typhoons. To lessen the damage from the storms and flooding, the province set up a vision and goals of safety management, making every preparation for disasters. Under the goals of "safety, security and comfort," the island has established an integrated safety system and makes efforts to introduce a safety culture in daily life and make improvements in the regional safety index.

To protect human life and properties from disasters, the province also established a plan to lessen damage and measures to cope with disasters by each type. The Jeju governor is in charge of the Safety Management Headquarters that has 13 task forces and operates the Integrated Field Safety Support Center. The province has also set up a safety management system against 59 kinds of disasters in three categories. Disaster management systems should focus on preventive actions in the field to minimize damage and protect lives. For the safety of tourists and local residents, the province has made every effort to cope with disasters by setting up systematic procedures for prevention, preparation and recovery.

— **Madelaine Yorobe ALFELOR** Disasters are divided into natural and man-made ones. A solution to one type of disaster does not work for another. There is no perfect measure to cope with disasters. But all disasters commonly call for preparedness and resilience. Iriga is a small city with a population of 110,000 in the southern region of the Philippines. It suffers from typhoons every year, with super typhoons passing through the city every five or ten years.

I have served as mayor for 11 years in a row. When I was serving my first term in 2007, a super typhoon with wind speeds of 94 kph hit the city. I mobilized all municipal resources for recovery efforts. Months later, another super typhoon arrived in the city, and there was also a volcanic eruption in a nearby city, which took the lives of six thousands. Fortunately, Iriga witnessed no death toll in spite of the two consecutive typhoons. I guess it was partly because the citizens have adapted to the typhoons. Iriga has taken various innovative efforts to prevent disasters. For instance, a mudslide occurred in 2007, and the city took emergency recovery measures by making small pools and draining facilities to absorb water. We also prepared accommodation in the city for the highland tribes to stay there. The native tribes in the highland area often caused landslides by lighting fires on the mountains as a religious practice or logging trees for reclamation for farming, thus making the land brittle. This was their traditional way of life.

To cope with disasters, we should conduct a probe into animals and plants, and find out what kind of danger lurks among them. And we need to introduce a biodiversity-maintaining system. It is a problem shared by most Philippine cities. When a mayor is newly elected, he or she may not agree with their predecessor's measures to cope with disasters. Therefore, an institutional measure is required to make policies consistent, even if a mayor is replaced by another. It also calls for documented policies and ordinances, and the stakeholders should be subject to education on safety management. Mid- and long-term measures should be maintained through education. Preparedness, resiliency, recovery, emergency measures, capacity building and improvement of equipment are keys to the successful operation of safety management. All of these cannot be prepared by local governments alone. The central government should join in the tasks. We fully understand the Sendai Framework and are making strenuous efforts to localize it.

I will wrap up my presentation with the famous remark of John F. Kennedy, "Do not ask what your country can do for you. Ask what you can do for your country." This is the quickest solution. The citizens of Iraga exhibited outstanding preparedness and resilience by joining the disaster recovery programs.

[Q & A]

Q. I have a question about the programs of Iriga. I am curious about how they influenced the people. It had no casualties in spite of the super typhoons. In South Korea, casualties have been reported at the arrival of every typhoon. What is the secret of the measures preventing human injury?

A. Madelaine Yorobe ALFELOR I was surprised to see most of citizens were well prepared for typhoons. As they know about the force of them, they shunned constructing buildings on dangerous locations and built them in a way to withstand the super typhoons. Also many citizens are seen to have had more resilience after experiencing typhoons for decades. The emergency planning of the city has a manual on how to operate shelters from typhoons for those from areas devastated by them. About 70 percent of the citizens engage in agriculture, but their farms recover soon. The citizens' attitude and the cultural environment help the city bolster its resilience.

> **Keywords**
>
> Disaster risk, Disaster management, City resilience, Local government, Sendai Framework, Make Cities Resilient campaign

● ● ●
Policy Implications

- All of the cities of the world are commonly interested in how to cope with disasters and build on resilience. As cooperation and shared responsibility among cities in the Asia-Pacific region is needed to lessen disaster risks, local governments should take the lead in establishing an information-sharing network.

- The shared goal of the Sendai Framework and the MCR campaign is strengthening the resilience of cities, so the governments and civic societies are advised to join the campaign under the guidelines of the UNISDR.

- Disaster management is not only the task of local and central governments, but also the private sector. Therefore, civic groups are encouraged to assume their role in disaster management.

- As citizens' networks and their capacity to respond to disasters are key to helping cities acquire a resilient system, successful cases should be shared through the networks.