I. DRR Lessons from Typhoon Hagibis

On October 12th, Typhoon No. 19, Hagibis, made landfall in central/eastern Japan. The strongest storm to hit Japan in more than 60 years, Hagibis caused severe damage throughout impacted regions.

Winds up to 162 km/h damaged buildings and other structures, and heavy rains led to the flooding of many rivers and more than 100 landslides across central and northeastern prefectures. Over 80 people were killed, over 200 injured, and search and rescue operations continued to locate the missing in the days following the storm.

In addition, just before the worst of the storm hit Japan, a shindo magnitude 4 earthquake (5.7 on moment magnitude scale) struck off the coast of Chiba Prefecture, increasing the already dangerous conditions and possibly disturbing earth and heightening landslide conditions.

Transportation continued to be disrupted in the days following, as the Hokuriku Shinkansen depot was flooded, and bullet trains damaged. More than 12,000 homes remained without water and electricity in the week following. It is estimated that Hagibis
caused over ¥980 billion (US$9 billion) in damages.

On Friday, October 18, six days after the typhoon made landfall, the Japanese Cabinet declared Typhoon Hagibis as a “specified” disaster. This designation, given previously to only five other serious disasters in Japanese history, provides areas most effected with some measures of administrative relief, so as to minimize administrative impacts of the storm.

There are many lessons to learn from this typhoon, and now, in the calm after the storm, it is time to analyze the strengths and shortcomings of DRR officials, plans, and response during and leading up to Hagibis, so that Japan can identify weaknesses in DRR plans and can take steps to reduce impacts of the next severe typhoon.

The concurrent typhoon and earthquake that occurred the evening of October 12 demonstrated the importance of layering DRR plans. While the earthquake did not cause disaster, the occurrence of this hazard during Typhoon Hagibis raised the concern of being prepared for disasters caused by multiple natural hazards. A comprehensive DRR plan which takes into account all natural or human hazards is necessary for situations such as these; identifying and adhering to international DRR guidelines like the Sendai Framework for Disaster Risk Reduction, or the UNDRR’s Making Cities Resilient campaign, can help cities attain such a comprehensive plan.

Typhoon Hagibis showed the power of technology for disseminating important information. Leading up to the typhoon, citizens were given ample time to prepare thanks to meteorological data predicting the severity of the storm. Transportation suspensions were broadcast in advance, with trains, buses, and flights declared cancelled days before the storm hit.

During the event, emergency alerts were issued to phones, notifying residents of imminent dangers like landslides and flooding and if they should evacuate. Official websites held up-to-date information on evacuation centers and typhoon conditions, and a public emergency wifi was activated.

After the typhoon, many Facebook users could mark themselves “Safe” and use a feature which allowed people to ask for help or offer assistance to others, providing a platform for mutual help and self-help among citizens.

While typhoon information was widely available through various technologies, official emergency information for many areas was only available in Japanese. As the Rugby World Cup was ongoing during the Typhoon, difficulties for many tourists and foreigners caught in the storm occurred due to language barriers. NHK, Japan’s national broadcasting organization, reported much “expat confusion” about emergency warnings and evacuation notices, noting some foreigners could not find any information in English about where to go once evacuated. While Japan’s Tourism Board had information in multiple languages on its website, it provided only general typhoon information.

With the approach of the Tokyo 2020 Summer Olympics, it is imperative that dissemination of important, critical emergency information be accessible for both Japanese and non-Japanese speakers alike.

Clean-up efforts post-typhoon are still ongoing. While many regions like Tokyo and Yokohama were relatively returned to normal by the Monday following Hagibis, throughout other regions thousands remain at evacuation centers with their homes inundated or destroyed. To help reduce loss of GDP post-disaster, Japan declared Hagibis a “specified” disaster, but additional on-the-ground efforts remain.

As seen with Hagibis, Japan will need to heighten its disaster preparedness to strengthen post-disaster response, so disaster turnaround and build-back time is minimized. This aligns with Priority 4 of the UNDRR’s Sendai Framework: enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation, and reconstruction.”

This could include formally training community groups in disaster recovery to clear out debris after storms, or upgrading residential building codes to sustain high-speed winds, or reinforcing citizen knowledge of evacuation center locations and city evacuation plans.
II. International Urban Resilience Forum 2019 gathers commitments from urban stakeholders from around the world

Seoul Metropolitan government hosted the International Urban Resilience Forum from September 23-24, 2019 to share trends and best practices and to discuss the ways in strengthening resilience to disasters and sustainable city development.

Opening the session Mayor Park Won-Soon of Seoul Metropolitan government pointed out on the partnerships Seoul has made among cities as well as global commitments such as Making Cities Resilient Campaign of the UNDRR and with the 100 Resilient Cities to share best practices of the city. He also stressed the need for the critical infrastructure to continue functioning during disasters.

On the occasion, the Special Representative of the UNDRR Ms. Mami Mizutori stressed on the partnerships that need to be enhanced to meet the global priorities of the Sendai Framework as well as to work towards realizing the SDGs.

Several thematic sessions were organized to give experts an opportunity to not only present but also to interact on potential collaborations and way forwards. In the “Enhance Urban Resilience Through Smart Technology Session”, Director of Programs Kendra Hirata from CityNet Yokohama Project Office provided inputs on ways city-to-city cooperation can strengthen the capacity building process of the urban stakeholders. A session on “Governance” included sharing of best practices from various city leaders as well as institutions.
III. CityNet Youth present at Asia Smart City Conference

On Thursday, October 10th, three CityNet Youth presented at the 2019 Youth Section of the Asia Smart City Conference. The students, from Yokohama City University, presented on the entrepreneurial environment of Japan and Shanghai, China. Mr. Minhyuck Choi, Mr. Ryohei Miyamoto, and Ms. Marika Hirayama discussed their research on startup ecosystems in both Shanghai and Tokyo, comparing how each country approaches, regulates, and influences startup culture in a smart city.

Mr. Minhyuck Choi described what makes a startup ecosystem thrive in Shanghai. He began by illustrating the example of the use of alternative payment methods in China, stating that most Chinese citizens now go cashless and pay through an app on their mobile phones.

To get to this cashless smart city, Shanghai had to facilitate startup ecosystem growth. Shanghai has taken steps to deregulate startup companies permit their growth; one such example this is exempting innovative projects from 34 laws. In addition, Shanghai holds two investment funds to facilitate startup growth. As the number of startups in Shanghai grew, more and more citizens began to appreciate and rely on local startups and entrepreneurs. The shift in culture, facilitated by the governmental encouragement of startups, has allowed youth to look to being an entrepreneur as an attainable and respected career path.

Mr. Ryohei Miyamoto, intern at LUUP, a Japanese startup, outlined how Shanghai encourages the startup ecosystem and entrepreneurialism of its youth, and compared this to Japan’s lack of encouragement for startup ecosystems. He provided the framework for legislation differences between China and Japan:

- Japan: Regulation → Competition
- China: Competition → Adaptation

China’s model of Competition → Regulation allows for freer innovation and more successful startups compared to Japan’s Regulation → Competition legislative model. If a problem arises, China then takes steps to regulate and fix the issue, compared to Japan, which enforces regulations on new companies first, reducing the amount of free innovation that can occur. The heavily-regulated Japanese process creates barriers for startups to create new markets in Japan. Mr. Miyamoto proposed that Japan adopt China’s model of Competition → Adaptation to begin to build its startup sector.

Ms. Marika Hirayama, Marketer at Slush Tokyo, spoke about the entrepreneurial intentions of students through startup events. Startup events, or events that bring entrepreneurs together to inspire and support each other through presentations, meetings, and networking events, are essential to creating a startup ecosystem and inspiring youth to innovate. Events like Slush Tokyo normalize startup companies and show others that creating their own company is attainable.

The presentations were then followed by a discussion and question and answer period, moderated by Mr. Kendra Hirata, Program Director of CITYNET Yokohama Office, and a keynote speech by Dr. Pitchaya Sirivunnabood, Capacity Building and Training Economist, Asian Development Bank.

The three students illustrated how a startup ecosystem within a city can elevate quality of life for citizens by introducing innovative new ways of living and addressing issues such as transportation, sustainability, or access.
During the third week of October, CYO staff and four members of the Yokohama Fire Bureau (YFB) dispatched to Makati, the Philippines, for a three-day training program. The YFB led scenarios with Makati City’s Search and Rescue team to increase capacity and efficiency of Makati’s first responders.

During the program, the YFB led trainings on second-story rescue, proper use of fire ladders, hose operation tactics, citizen rescue using ropes and ladders, blind search and rescue, and more.

Scenarios were then enacted in which Makati SAR exercised these skills, blindly entering a building and searching for victims, performing second-story rescues with victims, maneuvering obstacles in full gear blindfolded, and more.

In addition, CYO and YFB staff met with Makati City’s mayor, Ms. Abigail Binay, and viewed the Makati DRRMO emergency call center.

Photo Gallery
CITYNET Yokohama Project Office supports the SDGs.