Interview with Masato Koumura, Councillor, Cabinet Secretariat, National Resilience Promotion Office

Building National Resilience
Key Features of Japan's Renewed Disaster Mitigation Since March 11, 2011

By *Japan SPOTLIGHT*

Introduction

Our readers may be interested in how Japan has been strengthening its disaster mitigation measures in preparation for natural catastrophes following the unprecedented size of the earthquake and tsunami that hit the Tohoku region on March 11, 2011. *Japan SPOTLIGHT* had an opportunity to interview a key government official in charge of this policy. Masato Koumura, an expert on disaster mitigation, talks about the key points of Japan's renewed policies. Before getting into the details of these policies, I would recommend readers visit the website of the National Resilience Promotion Office at the Cabinet Secretariat where you can see a public relations poster featuring Norio Sasaki, coach of the Japanese women's national football team who won the silver medal at the World Cup 2015. This team, strong and flexible, would be an ideal symbol of the objectives of Japan's new disaster mitigation policy.

Masato Koumura, Councillor, Cabinet Secretariat, National Resilience Promotion Office

Background of National Resilience Policy

JS: Could you tell us about the background of the national resilience policy? Why was it adopted, and could you briefly give us an outline of the policy?

Koumura: As you know, Japan has suffered two gigantic earthquakes during the past two decades, one in Kobe and the other in Tohoku. In addition, there is a strong possibility of further massive quakes, such as somewhere along the Nankai Trough or in the Tokyo Metropolitan area in the future. These could cause many more casualties than the Kobe and Tohoku quakes. Since Japan is surrounded by around 10% of the world's active volcanoes, we can hardly escape from natural disasters. However, needless to say, we cannot just wait for another big disaster to destroy our nation.

Our office, in collaboration with other government sections, has been thinking about how to minimize the casualties likely to be caused by these possible earthquakes. More importantly, we need to check the effectiveness of the existing countermeasures. For example, we have to examine whether various measures are consistent with each other and effective enough on the whole, and also look at the relevancy of work sharing between the government and private organizations or individuals. If this checking mechanism does not work smoothly, we may be facing a difficult situation.

One of the key duties of our office is to work out the worst case scenario of a disaster's outcome — something we would not want to see but would have to be prepared to see. After all, we have to fix the most desirable time schedule for each ministry's disaster mitigation programs to be prepared for future disasters. In December 2013, the Basic Act for National Resilience Contributing to Preventing and Mitigating Disasters for Developing Resilience in the Lives of the Citizenry was passed by the Japanese Diet. This aims at creating Fundamental Plans for National Resilience in order to avoid the worst case scenario of any disaster and minimize possible casualties. As was originally planned, last year we made Fundamental Plans for National Resilience up until 2019, in accordance with this law, and since last fiscal year we have been following up the action program made at the beginning of each year.

The National Resilience Building program was started in the format of collaboration between the government and business. I believe that comprehensive efforts for disaster mitigation such as the Business Continuity Program (BCP) will produce strong and flexible Japanese industries and private businesses that can be restored easily after large-scale disasters. I would like you to note that we assumed at the creation of this new policy initiative that there

would be a wide range of participants promoting it.

Restoring Japanese Confidence in Risk Management

JS: Japan was severely criticized by many people overseas for our poor risk management during the Great East Japan Earthquake in 2011 and the Fukushima nuclear power station crisis. Will building a national resilience program make it possible for the Japanese to regain confidence in their risk management?

Koumura: To restore our confidence in risk management, we will need to think about the worst case scenarios that we would not want to happen. Then we will need to think about how to avoid them. And finally, each of us has to examine exactly what can be done at maximum to mitigate the worst outcomes for ourselves. We need to imagine the worst case scenarios first and overcome our fear in thinking about them. This should be the crucial starting point for disaster mitigation. The government, schools, businesses, and individuals should start thinking about these scenarios by themselves. This would lead to the next step of thinking about what can be done to prevent them. Nothing can be achieved if people are overwhelmed by fear of such worst case disasters and stop thinking about them.

JS: We Japanese need to learn lessons from our bad experiences, don't we? So what lessons can we say we have learned from the 3.11 disaster?

Koumura: There is a proverb in Iwate Prefecture, one of the areas that suffered most from the tsunami at that time, which stems from the people's previous experiences of tsunami. It basically says that you should just run for your life when tsunami come, without caring about anybody else. This was a lesson learned from past experience, but it did not help when the gigantic tsunami hit in 2011. There were many victims who did not run to protect themselves but stayed to look after their parents or children. They did not remember this old proverb at the moment of the disaster, even though their region had been hit by tsunami very often in the past. This suggests to me that they had never really thought about these words of their ancestors in their everyday life. If they had ever thought about them, they might have acted on them.

So we tell people that we should often think about our weaknesses in terms of risk management in our daily lives or routine business activities. Then many lessons, such as this old saying, would come to mind, and they could lead to new disaster mitigation measures adopted by the government and private businesses. This is the principal lesson that we have learned from the 2011 tragedy.

JS: One more question about the weakness of Japanese risk management. We tend to give up taking a risk once we have recognized its significance, even though we may lose any possible benefits from taking it. This reaction seems to be not very well understood, since the basic philosophy behind risk management worldwide is to think about how to minimize the risk, not to give up taking it. How do you think we can change our attitude from risk-abandoning to cautious risk-taking?

Koumura: I believe that better assessments of our vulnerability to disasters would help us to get rid of such a weakness. For example, in the case of risk assessment on a nuclear power station, if only experts on nuclear reactors consider the risk of an incident, they would probably conclude that a crisis can be avoided since they believe a reactor is earthquake-proof. But if experts on electricity supply participate in risk assessment on tsunami, they would reach a different conclusion since they know how easily tsunami could disable electricity at a reactor.

The lesson of Fukushima in this case is that we should think about a wide range of risk scenarios from the broader perspective of the security of the entire nuclear power station rather than just the nuclear reactor.

Another example would be hospitals. Any local government can nominate a hospital with a certain technology and capacity as a base hospital for emergencies in the region. In the case of flooding from heavy rain after a large-scale disaster, traffic to such hospitals could be paralyzed. We have actually discovered that many of these hospitals would be completely isolated. This would cause another crisis in treating and caring for injured people. If only experts in caregiving think about risk management on caregiving in disaster-hit areas, they may never discover such a risk.

An assessment on vulnerability to all kinds of risks will therefore need such horizontal collaboration among experts in different fields. A good assessment would lead to finding risks that nobody had ever thought about. In the case of hospitals, we focus on the functionality of a hospital and try to examine if it can fulfill the functions of a hospital as expected from a variety of policy perspectives. Such vulnerability assessments would lead to building national resilience and overcoming our culturally deep-rooted weakness in risk management.

JS: On a different note, would terrorism be considered one of the risks to be managed?

Koumura: The National Resilience Program itself is planned to cover the risks of large-scale natural disasters and not the risks of pandemics or terrorism. However, the Japanese government has set up a comprehensive risk management team for preparations for the Olympics and Paralympics in Tokyo in 2020. We will talk with them about possible collaboration, if necessary.

Cabinet Secretariat at Center of Risk Management

JS: As well as assessing vulnerability to various risks, you are promoting measures for disaster mitigation in a variety of the policy fields such as housing, energy and environment, social infrastructure, and comprehensive distribution systems. Are there any notable new measures?

Koumura: No, I do not think there is anything new among our measures for disaster mitigation. However, we have three horizontal projects in our national resilience program: risk communication, countermeasures to cope with obsolete infrastructures, and research and development. By leading a discussion on such horizontal issues among the ministries, we at the Cabinet Secretariat have just began to enhance awareness of the importance of risk management among the ministries overall within the government. This must be considered a new feature of our program and I believe that such concentration of power in the Cabinet Secretariat in disaster mitigation will be much more effective than if each individual ministry were in charge of promoting mitigation in the areas of its own specific jurisdiction.

Importance of Education & Information

JS: You said that we should all reconsider risk management in our daily lives. How do you think each of us can be further educated on this issue?

Koumura: As I said, it is most important for each of us to imagine the worst. Once you have thought about the worst, you can respond to the risk accordingly. To encourage better preparedness, sharing the concept of risk among us and knowing to what extent we are safe with existing disaster relief measures will be necessary.

For example, at this moment, if a 30-meter tsunami were caused by an earthquake along the Nankai Trough, it would render most of the tsunami relief walls useless. If residents recognize this and if the administration disseminates information on disaster mitigation such as evacuation routes, or if higher walls are built, people would be much better prepared for tsunami than otherwise.

JS: Is it also important to teach schoolchildren about the risks of natural disasters?

Koumura: Yes. We are now trying to make a supplementary textbook on them for schoolchildren. They would listen to our story about risks if we can make it easy to understand. Provision of basic information on the various risks for schoolchildren would lead to the spread of knowledge on risk management through their conversations with friends and with their parents. So eventually many more people will be thinking about disaster scenarios.

JS: On another horizontal project of yours, that is R&D, what do you think about the role of Big Data technology? Would it contribute greatly to risk management and disaster mitigation?

Koumura: Yes, certainly. It was already proved in 2011 that the information obtained from social networking services (SNS) on the situation concerning disaster-hit areas and their residents was more precise and timely than that provided by the administration. Even before the administration looks into the damage caused by a disaster, we can get to know exactly what the residents in the disaster-hit area would need for their survival from the intense SNS conversations.

The relevant ministries are now thinking about how to take advantage of such Big Data for disaster mitigation. For the utilization of such data, it is now crucial to secure information networks.

Checking on Progress

JS: On the question of progress in managing the project, do you have any kind of roadmap to achieve the final goal of building national resilience?

Koumura: Yes. We established a Key Performance Indicator (KPI) in each promotion plan, such as raising the percentage of earthquake-resistant residential homes as a numerical target for 2020 in our Action Plan for National Resilience 2015. For example, we have a goal of raising the percentage of earthquake-resistant residential buildings to all housing from 82% now to 95% in 2020. This is the upper limit for us as a target in the light of our fiscal constraints.

JS: You have so many KPIs in your Action Plan. Would it not be exhausting to monitor all the indicators for

these detailed plans every year?

Koumura: Yes. Most of the monitoring will be left to each ministry concerned. We at the Cabinet Secretariat will assess the relevance of each KPI set up by an individual ministry and be ultimately responsible for publishing them.

Consolidated Human Network

JS: In that case, the key to success in monitoring the progress of the project would be how to achieve good collaboration between your office and the relevant ministries. What kind of difficulties do you think you may have in this process?

Koumura: I believe the key to success is the smooth exchange of information among the people responsible for each specific plan and how quickly decisions can be made. For example, we have worked on making maps of regions in promoting national resilience programs in local communities. The maps will be used for disaster management and contain all the important public facilities such as roads, electric power stations and substations, and hospitals in each region, with priority on the restoration of each facility in the event of a disaster. Such maps should have been made before but have never existed so far. Each public facility has only thought about how to protect its own interests and never about exchanging information with other facilities. Therefore, they have never found what would be the most serious impediments to disaster mitigation in their region.

In the Chubu region of central Japan, for example, we invited academic experts and officials from the government's local offices, local industrial and business associations, and private firms owning vital infrastructures to join a collaborative project to produce a local map, as mentioned. This provided them with a good opportunity to discuss the national resilience policy and eventually they agreed to update the map every year from now on. This process itself — discussions among the people responsible for each important public facility toward the common goal of disaster mitigation — would contribute to minimizing casualties in the event of a disaster.

We have also asked local governments to formulate their own local plans on the basis of our national plan. Most of the prefectural governments have started working on them but some municipal governments have not started yet. I think it is very important for municipal governments and local businesses to discuss their vulnerability to risks in their own areas.

JS: We think we will need great dedication in pursuing this huge project to achieve national resilience. How easy will it be to maintain our enthusiasm for completely changing our nation's disaster mitigation philosophy?

Koumura: It will not be so easy. It is important to involve all the people in activities such as risk communication, drafting local plans for disaster management or making textbooks on disaster mitigation for schoolchildren. In this process, everyone needs to continue to think about the worst-case scenario together. Such continuous social contact among the key people in each local area would facilitate final decision-making in dealing with disasters.

Photo: Askaen Co., Ltd.

Five-storied pagoda of Horyuji Temple

Horyuji Temple — Oldest Example of National Resilience in Japan

JS: Finally, could you tell us about your future ambition, if any?

Koumura: I can tell you an interesting story. There is one wooden structure in Japan, the oldest in the world, which has never been destroyed by any disaster. This is the five-storied pagoda of Horyuji Temple *(Photo)*. It was constructed in the 7th century, so it must have been shaken by many earthquakes. But this thin and tall building has never collapsed. There is a vertical pillar at the center of the building and each story of the five is not fixed horizontally but moves independently. This is the oldest earthquake-resistant technology we have and is still being used, such as for the Sky-Tree Tower in Tokyo, the tallest tower in Japan that was built a few years ago.

The ancient Japanese instinctively knew about such resilience technology. We should be proud of this. Building national resilience has never been new to us Japanese. I believe we can complete our work on national resilience by drawing on such instinctive abilities.

JS

Written with the cooperation of Naoko Sakai who works for the NPO Yokohama Community Design Lab and is also a Hama-link Project leader and writer for the Yokohama Keizai Shimbun.