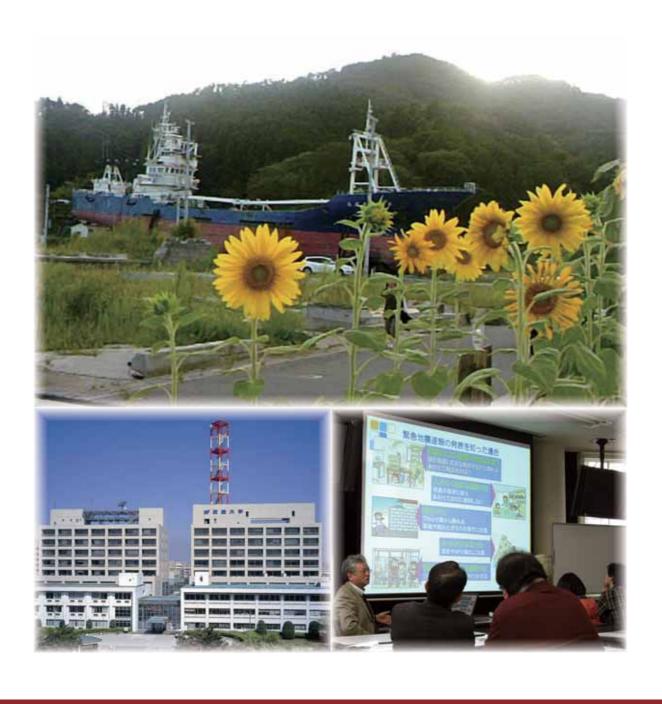


# Lessons from the Great East Japan Earthquake - The Open University of Japan: Response and Challenges -

AAOU2012 Special Session Report - Crisis and Risk Management-



### **Photo Gallery**



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#### Introduction - Purpose and Frame of this Report -

#### 1. Intent of this Report

On 11th March 2011, the Great East Japan Earthquake struck Japan. This unprecedented disaster caused a wide range of damage to the Open University of Japan. Our headquarters in Mihama ward, Chiba City, suffered property damage due to soil liquefaction, and at the study centers in disaster affected prefectures including Miyagi, Iwate, and Fukushima, the damage was not only to property but also student related personal suffering and we had many difficulties in supporting their studies.

The Open University of Japan (OUJ) is a distance learning university with 50 study centers and 7 satellites located nationwide. More than 80,000 students of this university are scattered throughout Japan. There is a considerable difference between this unique educational system and organizational structure of OUJ and those of so called commuter universities, though there might be something in common among them. Therefore, damage from the earthquake and the aspects of restoration can be different between a distance learning university and commuter universities.

Now two years on from the disaster, the main purpose of this report is to review what the Great East Japan Earthquake has brought to OUJ, and what we have to learn from it. We hope to achieve disaster resistant university operation and high quality education by learning from those experiences.

#### 2. About OUJ

We would like to note here briefly about OUJ. The Open University of Japan (OUJ) is a distance learning university founded by the Open University of Japan Foundation under the auspices of the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Internal Affairs and Communications. The act permitting the establishment of the University of the Air Foundation was enacted in 1981 with the aim of providing opportunities for higher education and lifelong learning nationwide, and based on this act, OUJ was established by the Open University of Japan Foundation (OUJF), a special public corporation (OUJF has been categorized as a Special School Corporation after the Reorganization and Rationalization Plan for Special Public Corporations in 2001).

OUJ has 50 study centers and 7 satellite spaces all over Japan, and its headquarters is located in Mihama ward, Chiba City.

Its educational system consists of undergraduate degree programs (The Faculty of Liberal Arts: Living and Welfare course, Psychology and Education course, Society and Industry

course, Humanities and Culture course, Nature and Environment course) and master's programs of the School of Graduate Studies (Division of Arts and Sciences: Human Life and Health Science, Human Development Science, Clinical Psychology, Social and Management Science, Culture and Information Science, Natural Environmental Science).

In OUJ, about 89,000 students (as of the second semester in 2012) are studying to receive a bachelor / master degree, or to advance their careers. The student attributes cover a wide range. By age group, it varies from the 10s to 90s. Fifty-five percent of undergraduate students and seventy percent of postgraduate students are employed as a company employee, teacher, medical staff, or public employee.

For the course materials, in addition to printed textbooks, broadcast materials are produced and broadcast. OUJ is one of the few universities in the world that has its own broadcasting station and production studio. More than 300 courses are broadcast through BS digital and terrestrial (only in the South Kanto region) broadcasting for free. In addition, the Internet is also used to support learning. On the other hand, face-to-face instruction is highly required. More than 3,000 classroom sessions a year are conducted at 57 study centers and satellites throughout the country providing opportunities for students and teachers to learn together and to deepen interaction.

#### 3. Special Session at the AAOU2012 Conference

The 26th Annual Conference of Asian Association of Open Universities (AAOU) held in October 2012 motivated us to make this report. The annual conference of AAOU is hosted by one of the member institutions. In 2012, OUJ hosted and held the conference at Makuhari Messe, Chiba City.

During AAOU2012, the special session "Crisis and Risk Management" was organized by faculty members and students of OUJ. This session was planned for the purpose of conveying a message to the world with the knowledge of OUJ's stakeholders who experienced the Great East Japan Earthquake. It was a very meaningful session with four reports together with questions and comments from the participants. During the session, the current status of restoration and challenges and risk management were defined from different states and perspectives.

This report was made to advance the fruits from the session. It will be a real pleasure for us if OUJ can send a message through this report to the parties including distance education universities and other universities in Japan and overseas, municipalities or authorities concerned, and citizens that are facing risks from natural disasters and other kinds of disasters.

#### 4. Structure of the Report

This report consists of the following items;

In the first chapter, "Reports and Discussions on the Special Session" is introduced. Four reports will look back on the Great East Japan Earthquake and look for lessons to be learned from it from the four different perspectives of 1) national, 2) regional/Study Center's, 3) organization/headquarters of OUJ's, and 4) individual/student's viewpoint. As for 2), the director of the Iwate Study Center, and for 4), students from Fukushima Study Center described the vivid aspects and problems of the disaster shortly after the earthquake occurred. In this report, the speakers' words were employed unaltered so as not to spoil the reality of the disaster site described by the speakers. The contents of the reports are uploaded (in English) on the website of AAOU2012 (the URL is given on page 38).

In the second chapter, the educational performance and regional contribution of OUJ/Study Centers are introduced. When the Great East Japan Earthquake occurred, one of the responses OUJ immediately launched was developing educational contents covering risk management for disasters and crisis to absorb the lessons learned from this catastrophe and to provide them to OUJ students, local residents, and the public nationwide. To be specific, those activities include holding face-to-face instructions and open seminars, producing and broadcasting disaster-related educational materials, special lectures, and public relations programs. OUJ has 50 study centers nationwide and those centers have a regional network, and a long list of lecturers including full-time, guest and part-time lecturers can cover a wide range of specialized fields. OUJ can transmit information through broadcasting media such as radio and TV. In making use of these specialties, the educational services and regional contribution of OUJ/study centers are described here in specific terms.

In the third chapter, "Risk Management system of the OUJ" is discussed. Along with activities introduced in Chapter 2, one of the responses OUJ launched immediately after the earthquake was improvement of risk management. Here, we present specifically how OUJ coped with the crisis of the Great East Japan Earthquake, and what sort of institutionalization, organization and implementation OUJ will undertake. We must say that having 50 study centers scattered throughout the country and having a broadcasting station added more difficult factors to OUJ in responding after the earthquake and in establishing a risk management system. Based on those factors, we would like to introduce ongoing (being continually reviewed for their effective implementation following the PDCA cycle) establishment of a risk management system.

And at the last chapter, as "The conclusion -The Open University of Japan: After

Overcoming the Earthquake-", the entire issue will be concluded. We would like to overview Chapters 1 through 3, and cover the future of OUJ after overcoming the Great East Japan Earthquake.

In the course of producing this report, we received excellent cooperation from so many people. We would like to express our sincere gratitude to them. The speakers of AAOU2012 Special Session who are still very busy with reconstruction efforts (at the national, regional, organizational and individual level) have kindly given us great assistance. Directors of the Study Centers and students of our university provided insightful opinions. OUJ clerical staffs from Strategic Planning Office, General Affairs Division, Public Relations Division, Academic Affairs Division, Study Center Affairs Division, Broadcast Planning and Programming Division have made great efforts to organize and coordinate related materials. Furthermore, full-time teachers and relevant parties from home and abroad also provided us various input. We believe this was done so that our experience of this unprecedented disaster should not end in vain. With this intent, we would like to continue our efforts for OUJ to become a resilient organization against crisis including disasters and that can make educational and regional contributions.

11th March 2013

The Report: Lessons from the Great East Japan Earthquake

- The Open University of Japan: Response and Challenges 
On behalf of Editorial Board

Yumiko Nara·Ryuuichi Yamaoka



Chapter 1	Reports and Discussions on the Special Session

#### I. Toward Globalizing Reconstruction Initiatives

Takashi Mikuriya (Professor, the Open University of Japan)



Because I've been a member of an advisory committee of the government since the 3.11 earthquake occurred, I would like to talk about some characteristics of the reconstruction plan dealt with the nation level.

Last year, after the earthquake of 11th of March, a reconstruction initiative meeting was organized in April and I serve as an acting chair. At the same time, I worked as a coordinator and the author to draft the recommendation for reconstruction. Our meeting members consist basically of professionals who are essentially experts, and even non-expert but people related to Tohoku region, rather than politicians and bureaucrats. It was very hard work.

#### 1. "To be Independent" and "To be Connected"

The accomplished recommendation of the committee consists of some pillars. First, we suggested making up a new way of local coordination. That is, because it is impossible to entirely suppress a natural disaster through human power in the future, our point of view is not based on disaster prevention but rather "disaster reduction", and with this vision, we will focus on the local community and human resources that connect people with other people. Our recommendation pointed out that without an idea of what we should do, as an independent organization, to confront the disaster as much as possible, the reconstruction might not be accomplished if we leave all to the government or public measures. To what extent should we handle things independently before we rely on public support? I think we made a really bold suggestion.

In our idea for a new way of local coordination, we focused on the connection of people to people. We recommended that if a bit of knowledge can breakthrough local difficulties, then volunteers can contribute their expertise. Today, volunteers are coming from various fields and continue to offer their expertise.

#### 2. Toward Resuscitation-----Llife, School, Industry

The second recommendation is resuscitation of life and jobs to reinvigorate the communities. From

the view point of daily life, we suggested that the entire community should be cared for as a comprehensive project. That means integrating health and medical services, care giving, and welfare services to connect disaster affected people, and at the same time, to create new jobs. Human resources in charge of high level medical services should also be cultivated in the disaster affected region so that they can play a role in establishing new communities. We named this approach in the disaster affected region as "comprehensive community care".

From the stand point of disaster reduction, functional enhancement of school facilities is really important. Of course, a school facility itself can serve as an evacuation center or a disaster preparedness location, but we also recommended expanding the function of the school as a core facility of the new community. Today, local communities have long since collapsed just like urban communities. Therefore, our recommendation intended to focus on the school to regain the community's attractiveness and drawing power so that people in the community can reunite.

Furthermore, for industrial revitalization, our recommendation confirmed both active utilization of the traditional system and employment of a new framework. However to our regret, we could not mention enough about revitalization of business because of the shortness of the available time, though we had many things to suggest.

#### 3. Reconstruction from the Nuclear Disaster

And the third was the most difficult recommendation for us. It is the recommendation toward reconstruction from the nuclear disaster. When we submitted our recommendations in June, the actual conditions of the nuclear disaster were not clear and were still being assessed, but even at that time, we included an in–depth recommendation for reconstruction from the nuclear disaster. After disillusionment with atomic power, how much effort do we have to put forth for the Fukushima region? In our recommendation, we have stipulated that the government must give assistance so much as possible to Fukushima for this particular incident.

#### 4. Toward Open Reconstruction

The fourth recommendation is open reconstruction. Which means that the reconstruction will not be limited in disaster affected area, in other words, the reconstruction will produce new acts, and various creative acts will spread all over Japan, or even worldwide. In a sense, Japan is a mature country and in Japan as a developed nation, we have suffered such great damage. The process of reconstruction from this disaster should be a model case for possible disasters in Asian countries or in other parts of the world. In the recommendation we stated plainly that we will present a model for reconstruction.

We mentioned that words such as volunteer, mutual assistance (helping each other), social inclusion (encompassing the entire society) and 'new public' represent matters that are now emerging. These

words also contain a common meaning of linkage. In connecting someone to another person, the opportunity has arisen for people who used to have no place to belong or no chance to serve. People who failed to establish their own self-respect have experienced that they can help others through care service. In addition to the tremendous improvement of volunteers, our recommendations included the hope of utilizing those experiences in some way.

## 5. From the Reconstruction Initiative Meeting to the Revitalization Committee - Looking Back over One and a Half Years

Since then, one and a half years have passed. We have undertaken a role in reviewing the reconstruction and pointing out what has happened at the Revitalization Committee, post-Reconstruction Initiative Meeting. The Committee released an interim report just recently, which is written in Japanese but I've heard its English version will be released in the near future. When we were compiling the interim report, we quickly realized that results turned out differently than we recommended. We regret our inadequacy in changing the status quo and our recommendations remained to some extent just words. Moreover, what we felt after one and a half years was that our inspiration and imagination on the disaster of 3.11 were already waning.

I coordinated and drafted the report this time as well. In the report's preface, I wrote; "One and a half years have passed since that day, 3.11, the time when an unprecedented earthquake, tsunami, and nuclear accident struck the land of Tohoku and all of us were shocked by that unimaginable incident and what happened. Post-war Japan has fallen apart. A tidal wave that brings a substantial change to post-disaster Japan has come. However, the feeling shared that day has been confined to the distant past before we knew it. Whether good or bad, the circumstances that urged speedy restoration flooded the country, and the consciousness of impending disaster that might happen to us tomorrow has been driven far from our daily life. But we should never forget the misfortune befell humanity in an instant on that day. We made such a pledge to ourselves on that day, didn't we? However, our experiences continue to wear thin as time goes by. We will continue our efforts to recall our pain from the memory of that day so that the disaster will not be forgotten." This was the real feeling of the committee members including myself at that time.

#### 6. For the Memory of that Day

Then, this is the last subject of my speech, that what we should do, and what I'm doing now, is to archive a record of the earthquake and its reconstruction. Many individual victims have recorded the ongoing process with their camera from that day. However, after a year and half has passed from the disaster, they don't know what to do with those records. But we have to preserve those films and pictures or we will be doomed to fading memories of that disaster. After previous earthquakes of the

distant past, monuments were built or markers of the flood level from tsunami were set up. But they proved to be forgotten in a few decades. People say that it is hard to read the classical Chinese inscriptions. They even wonder why such markers were set up in such places. We should not make the same mistake again.

Because the technique of virtual reality is now available, it is not necessary to make a large archive; we can make some installations at the sites to show the actual incidents at the actual places where they happened, and provide pictures so that we do not forget that day.

Reconstruction itself is significantly important. I know there are many arguments about how the reconstruction budget should be used. In overcoming those arguments, we have to consider how we can manage and preserve the memory of 3.11 and the circumstance of that day. When we discussed this, some of the local people shook their heads and said, "No, we do not want to remember such a thing anymore. It is a trauma for us." I understand them. However, we have to preserve pictures of reconstruction for discussing this with them. And with those pictures we have to interpret what happened in what situations, and how reconstruction has been accomplished.

I still have more things to talk about to you, but today I have only introduced a small portion of our work in the committee at the national level. So, this is my premier report to you. Thank you for listening.

II. Tsunami Disaster of the Sanriku Coast and Response Taken by the Iwate Study Center

#### Tokumi Saito

(Director of the Iwate Study Center, the Open University of Japan)



The previous speaker talked about the nationwide activities. Now I'm going to talk about something anecdotal. Today I'd like to present a brief report on "the tsunami disaster of the Sanriku coast and the role of the Iwate Study Center". Firstly, I'd like to talk about what I have always been thinking about as the director of the Iwate Study Center. The second part of my speech will be the current status of the tsunami disaster. Thirdly, I will talk briefly about the latest progress of reconstruction and the related challenges. Lastly, I will talk about the Iwate Study Center's responses to the disaster.

#### 1. Message to Students from the Director of the Iwate Study Center

As the director of the study center, I always tell my students to "acquire knowledge, get wise and contribute to the society". Most of the students of our study center are from Iwate. My goal is to rebuild the area by "staying in the lands of Iwate and standing by the locals". Here are a few of the keywords of rebuilding the area. This one literally means "no hunger". We are enjoying tasty food and are living in an unprecedented age of plenty. The other keywords are "ensure sustenance" and "safety". We need to be prepared for natural and human disasters. Another keyword is "spiritual richness", which is difficult to achieve but crucial for the local community to evolve into a sustainable society. As a human beings, who are part of the eco-system, I think it is our mission to preserve our species and to pass our heritage to the next generation by taking preventive measures to survive disasters.

Based on this philosophy, I conducted a series of special director seminars last year on local disaster preparedness, which is my specialty. The seminar consisted of 6 lectures under the title of "To survive on the land of Iwate", and I talked about issues on disasters and waste disposal. About 10 years ago, Mt. Iwate was on the verge of eruption and we were unable to decide which countermeasures to take.



Right after our discussion over Mt. Iwate, a volcano called Shinmoedake in Kyushu erupted. About 4 years ago, a major earthquake called "Iwate-Miyagi Nairiku earthquake" occurred on the border of the two prefectures. When we were still discussing the aftermath of the earthquake, another earthquake occurred in New Zealand and took the lives of many Japanese students. Disasters do come in a row. The ultimate example was that I talked about "the fate of the Sanriku Coast: how to protect yourself from tsunami" on the 5th of March, then 6 days later, the Tohoku earthquake occurred on the 11th of March. The local researchers on the topic all experienced a sense of fate.

#### 2. The Tsunami Disaster

Next, I'd like to talk about the tsunami disaster. The coastline of Iwate and Sanriku has been hit by tsunami many times before. The Jougan tsunami, Keicho tsunami, Meiji Sanriku earthquake and tsunami, and the Showa Sanriku earthquake and tsunami are just some of the major tsunami disasters among many others. The Meiji tsunami took the lives of 22,000 people, which was a far greater death toll than this time.

As has been mentioned before, in Iwate we have an old saying of "tsunami tendenko", which literally means one should just escape by oneself when a tsunami strikes. I won't dig too deep into this but to cut a long story short, the local wisdom calls for individual's escape. However, the wisdom of the adage was not taken to heart and caused a bigger death toll.

Magnitude 9.0 Largest earthquake ever recorded in Japan

Massive earthquake beyond assumption

Height of the tsunami: 39.7m

The area has been struck by 30m-class tsunamis 3 times during the past 110 years

The tsunami was within scope of assumption

In the extra edition of the local newspaper the day of the earthquake, the death toll rose quickly from the initial number of "a few hundred" as the situation slowly unveiled. We heard people lamenting about the "unforeseen" Magnitude 9.0 earthquake. Of course there's a lot for the seismologist to reflect on, but the history of seismic observation is only 138 years. We may reflect that it is impossible to use that short period of experience to predict the activity of our Earth which has a history of billions of years. In the sense of the inadequacy of our knowledge, I think the comment of "unforeseen" is valid.

However, for the tsunami, as I have mentioned just now, we have already experienced 3 major tsunamis with a height of 30m in the past 110 years, and we have been talking about the imminence of a tsunami for a long time. In other words, it was a foreseen tsunami. Despite this, we suffered a heavy toll of 6,000 dead and missing persons in Iwate, and 20,000 nationwide.





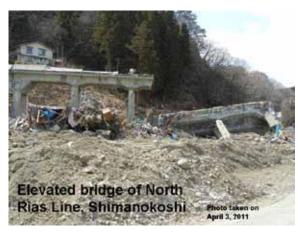




I am sure you have already seen a lot of footage, but to recap and as a reminder of the disaster, I have picked these images to show you. Many communities are devastated. This is Rikuzen Takata City with a population of 25,000. The entire city was swept away. Nothing left. This is Otsuchi-cho nearby. While some schools and buildings didn't get swept away, they were burned by fire. Here is the Taro area of Miyako City. The local dike was 10m high and 2,300m long, which was a record-holder in the Guinness Book and had the nickname of "the Great Wall". That dike was destroyed. The houses behind the dike were not swept away by the backrush of the tsunami, but still most of them were totally destroyed.



This is Kamaishi City. Although only part of the city center was swept away, it was swamped up to the 2nd floor of the shopping street, and the debris collected on the ground floor. Even concrete structures, such as the elevated bridge of the railway, collapsed. You can tell how strong the tsunami was. Along the coast, there were dozens and hundreds of flat lands connected to the inlets of the coast. They are all gone.



Settlements in the low lands were destroyed right to the base



#### 3. Current Status of Reconstruction and its Challenges

Now let me talk about the current status of reconstruction and the challenges we face. Other speakers have mentioned the government's reconstruction committee. The local government of Iwate also created a Great East Japan Earthquake and Tsunami Reconstruction Committee, a Strategy and Planning Expert Committee aims at rebuilding the local community and to compile reconstruction plans, which in fact has been my mission for all

Basic concept when considering tsunami protection measures

- "Tsunami will come again"
- "Multilayered prevention measures"
- Seawalls and breakwaters did have a certain effect, but disaster cannot be prevented by hardware measures alone.
- Evacuation drills and disaster prevention education by local communities and schools did contribute to saving lives

Disaster prevention culture and education to reduce pupil and student deaths

these years. Among the numerous works to be done, one of the main pillars is to recreate jobs. Without employment and the need to produce something, people will not aggregate. If people do not aggregate, there will be no need to build dikes, schools, roads, or railways. Hence, the biggest challenge is to revive jobs that attract people. Of course, it would be meaningless to revive those jobs if the local community is on a downward slide, but it has to be the first thing to do.

Moreover, Iwate has experienced 3 major tsunamis in the past 110 years. Now we need to think about how to build a safe community. The challenge can be boiled down to 2 major topics: jobs and safety, which are the basics of the reconstruction plan. However, in practice, we can only get funding by proposing various projects. Though we are not too proud of the extremely incoherent situation of more than 400 projects being proposed, it serves as a strong pillar of the reconstruction. The premise of the plan is the inevitability of tsunami strikes in the future. However, as we have mentioned before, it is impossible to prevent the disaster completely with dikes. So we need to think about various countermeasures, such as ways to minimize the damage and evacuation arrangements if preventive measures using hardware alone are not plausible. In other words, we should rebuild our community as a composite, multiple disaster preparedness area combining the software of understanding the cause of casualty with hardware countermeasures.

A year and a half has passed since the Tohoku earthquake. So what's the progress of the reconstruction? We did hear some good news on that front. However, as shown in the previous slides, the conditions of the damaged cities are almost the same. In that sense, I don't think we have made much progress on reconstruction. There are many factors behind the delay. For example, we need to deal with the lands left behind by the residents who have moved to the upland. Those lands are inhospitable and hence are really cheap. But the owner cannot relocate to a new piece of land or get a mortgage if the government does not buy or rent their old land, or do something about it. The government has not clarified the system for such a situation. The preexisting systems are all created within the framework of normal times. Drastically speaking, we cannot set up a plan to reconstruct the community if we are still bound by various restrictions. For example, lands with multiple heirs are being frozen due to registration issues. In such situations, the location of job-creating marine product processing plants cannot be decided and we cannot move forward. Drastically speaking, even if we managed to erect makeshift shopping streets, we failed to move on to build the real thing.

For example, in Otsuchi-cho, which I have showed you in the previous slide, what still remains are damaged buildings not being dismantled and foundations covered by weeds. The debris collected inside the Taro-cho dike has been removed, but the area has transformed into a grassland. Soon it will

become a prairie. At the shopping street of Kamaishi City that I have showed you, only 10% of the shops are back in business, but they are far from self-sustained.

What's behind the sluggish progress? The government has allocated 9 trillion yen by the 3rd supplementary budget for the reconstruction.

9 trillion yen allocated by the 3<sup>rd</sup> supplementary budget for post-disaster recovery. But...

Use of this budget is restricted to limited purposes and projects under the control of 5 ministries. Limited funding that can be used at the discretion of municipalities

To rebuild industries and create occupations Fundamental challenge: Conversion from a centralized government system to local autonomy However, to put it bluntly, the government ministries are turf-minded. The local government cannot use the budget freely on necessary projects because the use of the budget is restricted to 40 specified projects conducted by the 5 ministries. In order to create jobs for the afflicted areas, we are facing a big challenge of revamping the relation of the central and the local governments to create a framework for self-sustained action, in other words local areas with their own industries that are useful for the central government. To put it bluntly, the rice, meat, produce and electricity consumed in Tokyo are supplied by the local regions. If the local regions collapse, the capital region cannot be sustained and neither can the nation. A strong, self-sustained local region that fulfills its role for the nation is the key for the future of Japan. The big issue we are facing is that, if we fail to deal with the exhausted local regions on the downside before disaster happens, we shall have no chance of reconstruction.

#### 4. Response of Iwate Study Center

Communicate messages via the media to contribute to society as a higher education institution Educate students through seminars to utilize their knowledge for society



I have talked about some big issues. Lastly, let me give you a brief report on how the Study Center responded to the disaster. The Iwate Study Center is located in the inland about 100km from the coast, so of course it was not affected by the tsunami, and the earthquake there was not serious, hence there was not much direct damage. On the 11th of March, things fell off from the shelves but that's it. We experienced some major

With the sluggish progress of reconstruction, the lwate Study Center is searching for ways to expand its roles in assisting the local community.

Earthquakes/tsunamis can occur anywhere in Japan –The Open University of Japan is positioned to make unique contributions by leveraging its nation-wide network

aftershocks in April. The DVDs that the center was selling all fell off from the shelves and most of them were damaged. Slip stoppers, etc., did not do anything. This audio visual room was closed for 10 days, and we were forced to cancel the freshmen orientation meeting. However, we conducted the graduation ceremony in April because we wanted to at least present the diploma to our graduates.

In my case, due to the fact that my specialty is disaster prevention, I have been working with

various public committees and the Iwate Study Center's involvement in that field. In such a situation, my thinking is like this. First of all, as a higher education facility, the Open University of Japan needs to work as a base of the local community, then call for the public's attention through the mass media on our contribution and its results. Secondly, as I have said before, the study center has been sending out messages to inspire our students through seminars etc., to acquire knowledge and to think about what they can do for the local community and to do their best.

I have also been trying to get more opportunities to talk in public and to make suggestions about the challenges of maintaining the community and the importance of multiple disaster preventions. The Study Center itself has conducted many special seminars and emergency seminars for our students and also local citizens on the topic of how to reconstruct our community. In the case of the seminars hosted by myself, those were held in the large conference room with the maximum capacity of 100 people, and in many occasions the room was jam packed with students and locals. Those seminars were reported by the local newspaper on the topic of measures to revive the local community. I have also been giving lectures to many agencies and organizations dozens of time as a visiting lecturer. In that sense, I think the Open University of Japan has succeeded in sending out its message that it is doing its duty as a higher education facility for the sake of the local community.

However, as I have stated before, there is almost no progress on the reconstruction. In the midst of this reality, the Study Center continues its pursuit of what it can do to help. Now we seem to have forgotten that earthquakes can occur anywhere in Japan, such as the Nankai Trough earthquake. In this situation, the Open University of Japan has its own national network of study centers throughout Japan. We can utilize that network to acquire wisdom on regional safety and survival, which I think is even more important than learning how to read, write and calculate. I believe that the Open University of Japan can do more on that front. Please excuse my inconclusive report about Iwate. Thank you. (Applause)

III. Response of the Open University of Japan (OUJ) to the Great East Japan Earthquake and Establishment of a Risk Management System

Yumiko Nara (Professor, the Open University of Japan) Tamae Onishi



(Trustee, the Open University of Japan Foundation)

Good afternoon, ladies and gentlemen. We have just heard a presentation by Professor Mikuriya, which was made from a nationwide viewpoint and another presentation by Director Saito, which was made from the viewpoint of the study center. Now we'd like to consider the 3.11 Earthquake from the viewpoint of various organizations working on a national or regional basis, specifically, from the viewpoint of the Open University of Japan. The report will be made by Trustee Onishi in charge of administration of the Open University of Japan Foundation and myself, Nara. We will appreciate your attention.

Now I'd like to report of the following matters. Many organizations suffered damage from the 3.11 Earthquake. As a result, facing a crisis, they took responses to the crisis, and subsequently they have engaged in activities to improve their risk management. Companies, for example, have engaged in such, as well as commuter universities.

Then, what about the case of our Open University of Japan, which is a university for distance learning? In this report, we'd like to tell you first about the damage the Open University of Japan suffered as the result of the 3.11 Earthquake, and secondly about how the university responded to that, and thirdly about what has been done and is being done for the establishment and improvement of risk management.

# 1. Damage Suffered by the Open University of Japan from the Great East Japan Earthquake and the Response of OUJ

First about the damage. As you are aware, the Opening University of Japan has study centers in 50 locations and 7 satellite spaces across Japan. Our headquarters is located in Makuhari, Chiba City where you are right now. As for the damage to the headquarters, there was almost no personal suffering. As for damage to buildings, there were no building collapses, but due to ground liquefaction, cracks appeared in the ground, and ground sinkage occurred, while bookcases were overturned

strewing books about. As a result, the attached library was forced to close for ten days and the Chiba Study Center was also closed for one week.

Regarding the study centers, the centers located in the stricken areas, mainly in the Tohoku area, suffered great damage, but there were no injuries suffered by the staff. As for property damage, there were no building collapses, etc., but bookcases fell over, DVDs were scattered about, and power outages occurred in some centers. The centers in these areas were forced to close for one to two weeks, and some were closed for three weeks. As for damage suffered by students, as far as the Open University of Japan can assess, one student died and one is missing.

Next, I will speak about how the Open University of Japan responded to the Great East Japan Earthquake which caused such great damage. I will focus on what actions were taken during the year immediately after the disaster occurred. As the time for my presentation is limited, I can only show you items, but various actions were actually taken. The first thing we did was to try to insure security and confirm the safety of our administrative staff and faculty members. Then, we tried to assess the information concerning the damage. We then provided generous learning support to the affected students. These are just some examples. We established toll-free phone numbers in the disaster areas, and offered tuition exemption according to the degree of damage. Actually, we gave tuition reductions or exemptions to nearly 400 students during the year 2011. In addition, we, of course, visited the affected areas. We accepted donations. We took necessary measures for electricity conservation and did maintenance and repair work on the facilities.

#### 2. University for Distance Learning in a Disaster Situation

It has been pointed out by sociology of disasters, etc., that there are three particular characteristics of organizations when a disaster occurs. The first one is an increase in uncertainty. The second is an increase in urgency. The third is a decline of autonomy. Organizations in disaster areas are susceptible to these characteristics in varying degrees. I believe that these three characteristics have been amplified for use due to the various unique characteristics of the Open University of Japan.

So, what are these unique characteristics of the Open University of Japan? Needless to say, it is a distance education institution, more specifically, a university for distance learning. To be more precise, first, it has its own study centers in 50 locations throughout Japan, serving 89,000 students scattered throughout the country. Secondly, educational contents are delivered not only by face-to-face communication in classrooms but they must also be broadcasted exclusively by television and radio, and such broadcasts must not be interrupted. Thus, the university has a serious social mission. In the case of commuter universities, because students and teaching and other staff are located on the campus, the object of risk management can be confined to a certain scope, but the nature of the Open

University makes this unable to do, and so for this reason we face a more difficult situation as an organization when a disaster occurs.

For example, the increase in uncertainty was conspicuous. As you will understand, the fact that the disaster areas are distant from the headquarters became a major factor for this. Due to the clogging of telephone lines, power outages, and overwhelming of Internet communications, it became difficult for the headquarters to grasp the damage situation of the study centers in the affected areas. Through painstaking efforts, the staff at the study centers managed to contact us. I believe it was also very difficult for them to confirm the safety of students. I heard the staff at each department tried to confirm student safety by using all possible means, for example, by checking if the call centers received their reply, or if they attended classroom sessions ("schooling"), or if they properly submitted their coursework. I believe they handled very difficult tasks.

In addition, we are fatally not allowed to discontinue broadcasting by television and radio because we are a university for distance learning. Because, as you are aware, our curricula for television and radio programs are established based on a time scale of seconds, our work is very delicate and requires our full attention even under normal conditions. Under such circumstances, the earthquake with a seismic intensity of 5 upper occurred in Chiba causing ground liquefaction. Accordingly, the staff at the Technique and Operation Division had to check the damage situation and cope with electricity shortages while continuing normal technical and broadcasting operations. Thus they were forced to undertake a double task. I believe they continued working giving their full attention under increasing emergency conditions. I believe that this is a hardship experienced only by the Open University of Japan.

#### 3. For the Establishment and Improvement of a Risk Management System (1) - Three Points

In light of various matters we experienced, there is one thing the Open University of Japan focused on for one year from immediately after the earthquake. That is "Preparing a Risk Management System at OUJ." We have been working to improve our risk management system. Behind this background, there is the fact that, needless to say, Japan is a disaster-prone archipelago and great natural disasters are expected probably not too far away from now though we can't declare exactly when. Besides natural disasters, various risks potentially exist in organizations. They can be fire or typhoon. Aiming to build a strong organization that can cope with such various risks, the Open University of Japan began to undertake the necessary activities immediately after the earthquake disaster.

Now I'd like to introduce in detail the establishment of the risk management system of the Open University of Japan. The first theme is how to establish a strong organization against risks, but this is rather difficult. Because, when considering natural disasters, for example, once a natural disaster

occurs, we are to face situations that are quantitatively and qualitatively different from ordinary times. And it is all the more difficult because organizations have to deal with them while the organizations themselves and their relevant infrastructure are both damaged. It is also difficult to learn general lessons about disasters while it is quite hard to grasp when and how they will occur. In addition, because persons in charge of disaster preparedness, for example, in organizations are usually transferred for a different assignment every three to five years, so relevant experience and knowledge are hard to accumulate.

What should we do then to prevent such confusion and deal with the risks as smoothly as possible? There are three points: The first one is to properly study not only the experiences of their own organizations but also those of other organizations, and prepare "Disaster Response Lessons," namely the lessons learned. The second one is to shape the learned lesson into concrete plans and manuals. The third one is to prepare plans and manuals, and actually implement them, practice drills on a routine basis and make them substantial in depth as it couldn't be worst if we go no further than preparation of plans and manuals. Earlier today, the two professors referred to the keyword (not let them fade away). Just as the keyword says we must not let them fade away but continue to implement them.

### 4. For the Establishment and Improvement of a Risk Management System (2) - Organization and Concretization -

In order to properly grasp these three points, the Open University of Japan established the OUJ Risk Management System Study Committee, where the Risk Management Regulations of the OUJ Foundation were formulated, and specifically, the Basic Guidelines for Risk Management of the OUJ Foundation were prepared. Moreover, as an organization, the OUJ Foundation Risk Management Committee was established. This is a standing committee. This committee meets not to forget to consider a risk at the Open University of Japan as an organization on a routine basis. This is an important matter the Open University of Japan intends to complete first.

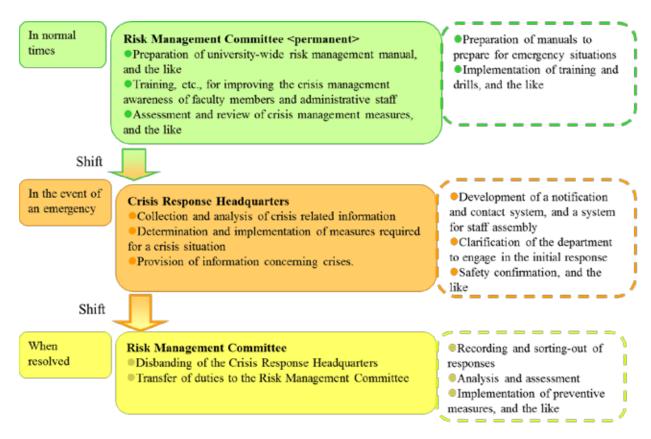
There is one thing clearly declared in Chapter 1 of the Basic Guidelines for Risk Management of the OUJ Foundation as the objective of the guidelines. That is to prevent what may cause damage to the students and faculty and other staff of the Open University of Japan, and minimize the damage once it occurs, thereby maintaining educational and research activities, and in addition, to ensure a stable supply of broadcast contents. This is the unique purpose of the guidelines specified by the Open University of Japan. Including these guidelines, measures are being taken aiming for organization. I think that the risk management addressed by the Open University of Japan has four important perspectives. The first one is "organization and integration". Particularly, "integration" is important. In

the past, risk management has been addressed separately by each department. These individual approaches have been integrated with the reflections from the 3.11 Earthquake. It has been decided to address risk management integrally while assessing it on a university-wide basis, and proceed with it concretely in the process of organization. This is the first perspective.

The second one is to promote risk management based on the PDCA cycle. It must be re-evaluated and promoted based on constant re-evaluation. To incorporate such a concept is the second perspective.

The third perspective is to practice prior risk management instead of dealing with it in a rush once a disaster occurs, and to incorporate long-term care for damage after the disaster as well as care on the spot. This is the third important point.

Lastly, the fourth perspective for establishing the risk management system of the Open University of Japan is to enhance the system for collecting information and communication as it was keenly felt through the experience of the 3.11 Earthquake that information is important.



Organization and system to respond to risk at the Open University of Japan ("Faculty and Staff Risk Management Handbook of the Open University of Japan" pp. 2-3)

Next, I'd like to speak about what measures are being concretely taken incorporating these four perspectives. First as for organization, as mentioned earlier, we have established the Risk Management Committee. This committee is a standing committee that works under normal conditions. They

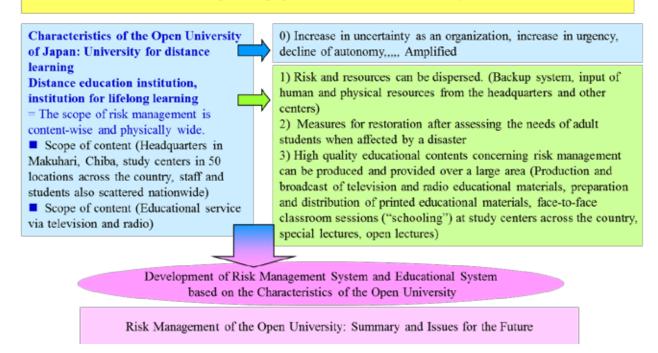
practice drills and review the manual constantly. And once a risk actually emerges, namely, at the time of an emergency, this committee immediately becomes the response headquarters. Accordingly, the shift of functions and members promptly change from that of normal times to shift for the emergency, and when the crisis is resolved, the risk management committee starts to function as the Risk Management Committee in normal times.

Another important thing is documentation. Instead of ending with caring about one another; what has occurred, how it has been dealt with, and what has failed should be thoroughly described based on the PDCA cycle and documented. This method of documentation is emphasized. Incidentally, after the 3.11 Earthquake, as the result of painstaking efforts made mainly by the staff of the Administration Division, a report like this was issued by the University one year later. The title is "Report on the Response to the Great East Japan Earthquake at the Open University of Japan: Looking back over the past year." A graphic record of communications from immediately after the 3.11 Earthquake, the relevant responses, what worked out well, and what did not work are described in detail including the relevant issues. It is because we have this kind of record that we were able to establish the Risk Management Committee and prepare the Guidelines just as I have referred to in my presentation. It shows that this kind of record is very important.

In addition, as part of our specific risk management, we make efforts to improve the risk literacy of staff (faculty and other staff). The Faculty and Staff Risk Management Handbook of the Open University of Japan was prepared and we always carry it. Also, we practice evacuation drills. Thus we try to prevent the fading of lessons learned from the earthquake disaster and to improve our risk literacy. However, this may be just my personal impression, but I feel the teaching staff's awareness of such is not yet sufficiently raised, and I think we must continue to properly work on this.

Moreover, we are working to reinforce our information system in terms of both the hardware and software aspects. Also, though this is for reinforcing hardware aspect only, as we are a broadcast station, we took anti-inundation measures for our equipment related to broadcasting as part of our effort to reinforce the hardware aspect. In addition, we are promoting stockpile building and anti-seismic reinforcement.

#### Manage risks, prepare for crisis = Secure redundancy



# 5. Take Advantage of being a University for Distance Learning - Aiming to be a Resilient University -

Now, lastly I'd like to conclude my presentation. From earlier, the two speakers reiterated the words of their thoughts "will fade away," "will never let them fade away." I really think the same way. However, to preparing for a crisis, namely, risk management, is a redundant act. To prepare for risk that may or may not ever happen, and have people prepared for it, reserve money for it, and prepare a different structure, this is really a redundant act. Also, fading away is inevitable for every organization. Probably it occurs at the Open University of Japan. It is above all very important not to allow it.

Earlier I have mentioned that one of the characteristics and fates of OUJ is that it is a distance education institution, and physically it has 50 study centers scattered throughout the country. Therefore, the increase in uncertainty, etc., facing OUJ as an organization is amplified. However, I don't think all the characteristics of OUJ are bad. We have study centers in 50 locations. From the other point of view, this just means, as Director Saito referred to earlier, risk can be dispersed. If I may add a little more, it means resources that can be used are dispersed throughout the country. Mutual accommodation is possible. Therefore, if we can establish something more systematic that allows such mutual accommodation, I think OUJ can be an organization less vulnerable to disasters.

Also, as the second characteristic of OUJ, I have mentioned that it is quite difficult to confirm the safety of students. I personal think that it is probably impossible for OUJ to completely confirm the safety of all students until there is no one missing. However, if I consider well whether students only

expect OUJ to confirm their safety, I think otherwise. I assume that adult students who account for almost all the students of OUJ probably expect different matters once a crisis occurs. In the case of the 3.11 Earthquake, for example, because many adult students who were the principal supporters of their households suffered from the disaster, what OUJ offered was exemption from tuition. This is just one example, but including this way of support, I think we could take the necessary measures after properly assessing what students really needs once facing a crisis.

The third characteristic of OUJ is that we have television and radio. Our operation is very tough because we must not discontinue broadcasting, but looked at from another perspective, it means OUJ can transmit information about risk and crisis throughout the country. We have prepared a program titled "University Window (Daigaku no Mado)" and special lectures again for this term, and we will continue creating such programs in our efforts not to let the memories of the 3.11 Earthquake fade away. Moreover, in order that all parts of Japan can be less vulnerable to disasters, I think we could create and transmit contents that help our citizens and people increase their risk literacy. The Open University of Japan is a college of liberal arts, and it has a faculty that can cover considerably diversified areas, and it is in an advantageous position for inviting visiting educators. In the meantime, as risk or crisis occurs in a very complex manner, the areas of research to cope with them must also be considerably complex. I think that certainly OUJ can do that, create such educational contents. Actually, several special lectures have been created, and several broadcast programs have been planned. I think we should continue to create classes actively in the field of social science and in the field of natural science. The same can be said of face-to-face classroom sessions ("schooling"). It can be done at 50 study centers. I hope that, proceeding with these measures incorporating its originality, the Open University will establish its risk management system. Thank you for your kind attention. (Applause)

#### 6. Take a Positive Step Based on the Lessons Learned from the Great East Japan Earthquake

(Onishi) As earlier mentioned, in the Open University, various measures had been planned to a certain degree in advance individually at each department, including response to students, maintenance of broadcasts, protection of the information system, securing of the safety of faculty and other staff, and these were implemented after the earthquake disaster. But when something that must be handled in an integral manner actually emerged, we had some confusion in communication and operation. Based on this experience, it was decided that an integrated and comprehensive system should be established by the Foundation. Accordingly, as introduced earlier, the regulations for risk management and the basic guidelines and manual were formulated.

We had various instructions from Professor Nara in various aspects on that occasion, and under such circumstances we considered a general system covering overall risk because the University as an organization may suffer various human and social risks not merely from natural disasters though they are significant. It is from this perspective that the Risk Management Committee was established with a participation of a trustee of the Foundation representing the administration and the vice-president representing education staff because it would be necessary for all the departments to respond to risk in a cross-departmental manner.

Secondly, based on the experience of suffering from the disaster, as mentioned earlier by the director of the Iwate Study Center, we heard actual experiences and suggestions from the affected people from the study centers, and assumed concrete situations, and made efforts to establish a system as concrete as possible according to them. We considered ways for dealing with situations based on concrete suggestions about what should have been done in various situations.

Moreover, we do not end with the preparation of manuals, but we practice training and evacuation drills so that we can act accordingly.

And we think this should be taken seriously in the future not only by headquarters but also by the 50 study centers. Of course, study centers in the affected areas, such as in Iwate and Miyagi, have already considered measures based on it, but there is a case of the Great Hanshin-Awaji Earthquake, and because, if an earthquake occurs in the Nankai Trough, etc., it will affect the Tokai, Shikoku and Kyushu areas, study centers in each of these areas must consider them. At present, as we wanted the 50 study centers to prepare manuals for risk management not only for natural disasters by all means, the Risk Management Committee recently formulated the relevant basic guidelines. Each study center is supposed to check them and prepare their manuals by next year. I hope that these matters will be taken in a little more positive or constructive manner.

IV. Response to Graduate StudentsAffected by the 2011 Earthquake at theOpen University of Japan

Nobuhiro Mori (Graduate School of Arts and Sciences, The Open University of Japan) Yasuhiro Kawahara

(Associate professor, the Open University of Japan)



I am honored and thankful to have the opportunity to be a speaker at AAOU. As a native resident of Fukushima, I deeply appreciate the various supports from the Open University of Japan.

It has been a year and a half since the Great East Japan Earthquake on the 11th March 2011. My home town is Fukushima's Minamisoma City. The city has slowly started the decontamination operation of the area. However, the city's radiation level is extremely high and as many as 150,000 Fukushima locals have no choice but to continue living in temporary shelters. When the earthquake hit, I was working as a healthcare professional in a local hospital. Today, I would like to share with you my account of the clinical work in the field when the earthquake hit, and introduce to you my research on the incident at the graduate school after the disaster.

#### 1. Introduction

Let me start by the toll caused by the Great East Japan Earthquake. This slide compares the loss of the Kobe earthquake in 1995, when is about 6 years ago, with that of the Great East Japan Earthquake last year. Not only the death toll of the later earthquake was higher, but what really stood out was the extraordinarily high number of missing people. 92.5% of the death toll of the Great East Japan Earthquake was caused by drowning. In other words, people were killed by the tsunami. I think the

importance of learning from the disaster is explicit to anyone.

Today's report will be an account from 3 prospective. First, I will explain to you the geographic relation of the Open University of Japan and my home town, Fukushima's Minamisoma City. I have also listed up the events during the week after 11th March chronically on a slide. Lastly, as a



evacuee of the earthquake myself, I'd like to report the supports I received from the Open University of Japan upon my enrollment to their graduate school.

Since you may not be familiar of my home town, let me explain the location of the Minamisoma City first. On this slide, I have indicated the locations of Chiba's Makuhari Messe, which is the venue of this conference, the Open University of Japan, and Minamisoma City. Minamisoma City is about 250 km away from Chiba. It takes about 4 to 5.5 hours of driving to get there.

This slide indicated the locations of Minimasoma City and Fukushima Daiichi Nuclear Power

Station. The area circled by the solid line indicates the evacuation zone 20 km from the power station, while the area circled by dashed line indicates the indoor sheltering and emergency evacuation preparation zone 20 to 30 km from the power station. Minamisoma City is 23 km away from Fukushima Daiichi Nuclear Power Station and as a result specified as an emergency evacuation preparation zone.



This slide indicated the locations of hospitals in Minamisoma City. There are 4 hospitals in Minamisoma City with the scale of about 150 beds. Among them, the hospital that I worked for was the Wabanabe Hospital. Today's report is on the clinical work and the response in the field at that hospital when the earthquake happened.



#### 2. The Events Occurred after 11th March 2011

So, let's go back in time. I will describe the response towards the earthquake in a chronological order.

It was 14:46 on 11th March. I am sure you have received testing such as gastric camera examination at medical checkup. On that day, I was in the middle of a gastric camera examination in the endoscopical



room. Suddenly I felt a strong earthquake. The hospital was a 5-storey building. I immediately rushed to the ICU on the 3rd floor where most of the medical device is allocated. All the emergency shutters were coming down and I needed to slip through them while everything was shaking, an ordeal I have never done before. At last I managed to climb to the intensive care unit (ICU) on the 3rd floor.

In the ICU, I stayed next to the patients' beds to make sure that the respirators did not fall off. One of the characteristics of the Great East Japan Earthquake was the pounding movement from below, and it was exceptionally long. I couldn't be away from the patients' bedsides for about 30 to 45 minutes. That day my shift ended around 7 p.m. and I returned to my dorm room nearby. My room was also shattered. Frankly I do not remember the accurate time but I think it was about 22:30 when the biggest quake I have ever encountered occurred. I thought I had to rush back to the hospital so I did. There I checked the condition of the patients and the medical device.

The patients were fine but things became tricky because of the deterioration of Fukushima Daiichi Nuclear Power Station. The government gradually extended the area of evacuation zone from 2 km from the power station to 3 km, then 10 km.

Since Watanabe Hospital was also equipped as an elderly care nursing facility (Facility Covered by Public Aid Providing Long-Term Care to the Elderly), the hospital was requested to serve as a temporary shelter for the elderly patients. There was no ambulance allowed into the evacuation zone so we need to transport the patients to the hospital by family cars and mini-vans. We drove back and fro until 4 in the morning. The hospital received about 50 patients and the lobby on the ground floor was swamped.

As a fact that probably didn't get reported in the news, radiation was actually quite familiar to me due to my job nature. The hospital was equipped with a radiation measurement device called Geiger counter. When we put the device on the incoming patients and the vehicles, the index swung all the way. The radiation level was beyond the gauge. It was really bad.

Of course we didn't get any direct support from the government. The only thing the government did do was delivering the same kind of protective suits used in the SARS (Severe Acute Respiratory Syndrome) epidemic erupted in China in 2002. To put if bluntly, I think the government probably had no idea of how to deal with this radiation situation. Maybe all they wanted was to keep the hospital staff there to take care of the patients. I don't have photos



taken then but here is a replica of the protective suit actually used at the Fukushima Daiichi Nuclear

Power Station, which is made with extremely sturdy material that can fully block out radiation. However, the suits we used in the field looked were in the same color but were much flimsier and not likely to stop the radiation from passing through our bodies. I remember thinking, "So this is the only support we have."

From 14th March onward, we started the emergency response. Sometimes patients just showed up at the hospital without calling. Sometimes an ambulance rushed in suddenly. Sometimes someone might have found a family member and just rushed in for help in their own cars.

Most of the patients were muddy with hypothermia. In medical lingo, there a term called triage, which means the process of determining the priority of patients' treatments based on the severity of their condition. So we triaged repeatedly by taking the X-ray and CT, delivering the patients to the hospital ward after preliminary diagnosis. We had a little problem when sending patients to the ward. There was an elevated tank (water tank) on the hospital roof for water storage. That tank collapsed due to the quake and it obstructed the elevator. As a result, all the staff needed to worked together to carry the patients upstairs.





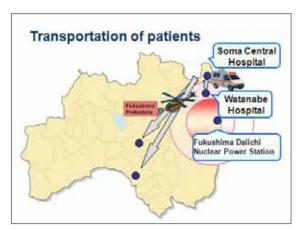
Then we had problem with the patients who were under our care before the earthquake. We needed to feed our patients. This is not the actual photo but it is similar to what we did. We transport the meals by relay to the patients in the ward.

However, on the 16th things went downhill. We had been receiving patients but since the area was



specified as an evacuation zone, we lost access to rescuers and medical supply. Perceived that the hospital could not function this way, the director made the decision to transport the patients away from

the evacuation zone. North of Minamisoma City is Soma City. Although it lies in the circled area, Soma City was not specified as an evacuation zone. Medical supply and other resources could be delivered there. So we used ambulances and helicopters to transport our patients to the safer area outside the evacuation zone.



Minamisoma City and Soma City is connected by the National Route 6. We drove the ambulance northbound to Soma City. These photos were taken en route.





At the far end of the photo was the Pacific Ocean. Here you can see a ship was pushed near the road all the way from the ocean. Of course I had seen how bad it was on TV, but it was shocking to actually witness the damage done to my home town.

This photo is also taken from the ambulance. The next photo was taken when we used the helicopters to transport the patients to a safer area.

Not all the patients were transferred in the same way. Patients who were in critical condition and needed respirators were taken to Soma City by helicopters. For patients who were not in critical condition but were too weak to fend for themselves, they were sent to the Self-Defense Force. I have never before felt so relieved and safe in the presence of the Self-Defense Force in my life.



In this manner, we managed to evacuate all the patients from the evacuation zone.

After evacuating all the patients, I relocated to my current workplace, a hospital in Chiba's Kamogawa City.



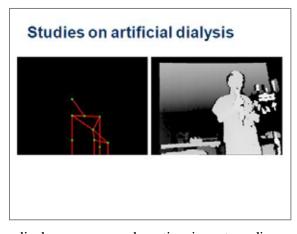
### Research at the School of Graduate Studies of the Open University of Japan

Lastly, I'd like to talk about my experience in the Great East Japan Earthquake and my research at the School of Graduate Studies of the Open University of Japan. Usually, when we mention natural disaster, we think about fire or earthquake. However, the Great East Japan Earthquake was a mega quake with an unprecedented 9.0 on the Richter scale and it triggered a tsunami as high as 10m. That calls for the countermeasures for tsunami and for the nuclear power hazard, which admittedly may be a need more or less unique for Fukushima.

Here, allow me to digress a little bit. In the case of significant deterioration of kidney function, it is necessary to perform dialysis, which is what I am currently working on. In Japan, there are approximately 300,000 dialysis patients, 4000 of them live in Fukushima. Affected by the Fukushima Daiichi Nuclear Power Station, 4 dialysis facilities were shut down. Of course patients would pour in from the afflicted area after an earthquake as extensive as the Great East Japan Earthquake.



At the hospital where I work with currently, evacuation drills and emergency drills are being performed. From time to time, these drills interrupted the emergency dialysis procedures. Medical staff has no choice but to perform irregular medical practices, which may lead to potentially serious medical errors, which means "close call" of actual medical blunders in the medical circle.



Finding the solution to avoid potentially serious medical errors or malpractice in extraordinary

situation is my research subject at the graduate school.

This is the research I am working on with Professor Kawahara as my instructor. We are developing a system with feedback function using sensors to collect physical information of the medical staff. On the left you can see the skeleton information. You probably can tell that which part is the head and you can see that I am stooping. By using this data along with the depth information detected by the sensors, medical staff can avoid potentially serious medical errors or malpractice even when they are performing irregular tasks. This is the system we are trying to develop.

On this slide is a screenshot of the web conference between myself and Professor Kawahara. Using the whiteboard function of this web conference system, I can receive real-time instruction. Such online instruction is cost-effective for students located in the afflicted area of the Great East Japan Earthquake to take lessons. I think this is a very important learning tool from the prospective of time and cost.

This slide illustrated the education support system of the Open University of Japan. Currently, it is possible to do research by web conference system, library, and message board at the Open University of Japan. An education system using different tools according to different situations is implemented.

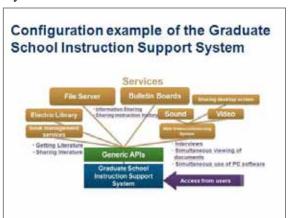




It is great but there are a few issues with the current system.

This slide illustrates my suggestion on the future instruction support system. Currently we need to use tools such as Web-OPAC, CiNii or Science Direct to acquire information.

Also, we need to use web conference or Skype to talk with our instructors about the progress of our thesis and every time we need to register again to



login. I think adding the recent single sign-in function into the instruction system will contribute to creation of thesis with higher effectiveness and novelty.

To conclude my report, I'd like to restate that it is necessary to utilize multiple tools to receive instructions according to different situations. But more importantly, we also need a research support system which is capable to comprehensively manage those different tools and services.

On the other hand, we also need to acknowledge the fact that the Open University of Japan provided a flexible environment for education through its 50 study centers distributed across Japan even in the middle of a major crisis like the Great East Japan Earthquake.

That was my account on the response of the medical staff at the afflicted area during the Great East Japan Earthquake and on my study at the graduate school of the Open University of Japan.

When I evacuated from Fukushima to Chiba after the earthquake, the staff at the Open University of Japan took care of me like a family. Without their selfless help, I would not be able to conduct my research. I'd like use this opportunity to thank the staff of the Open University of Japan of providing an environment to enjoy the pleasure of learning, even after the unprecedented earthquake.

Thank you for listening (applause).

# V. The Intent and Summary of the Special Session

Ryuichi Yamaoka (Professor, the Open University of Japan)



This is a record of the presentations made in the Special Session "Crisis and Risk Management" in the 26th Asian Association of Open Universities (AAOU) Annual Conference held at Makuhari Messe, Chiba, Japan, on October 16-18, 2012 (presentations were made in Japanese and simultaneously interpreted in English.). The Special Session itself was held on the 17 and chaired by Ryuichi Yamaoka. The presenters included Takashi Mikuriya, Tokumi Saito, Yumiko Nara, Tamae Onishi, Nobuhiro Mori, and Yasuhiro Kawahara.



The Special Session was held for the following reasons. In the Open University of Japan, as the host university for the 26th AAOU Annual Conference, the AAOU Organizing Committee was established (chaired by: Akira Ninomiya, Vice President, OUJ), under which the Local Program Committees were established for preparing the Annual Conference programs. The roles of the Local Program Committees included the selection of conference themes, reviewing the contributions received for each theme, and various

preparations required for presentations at the conference. In this Conference, a total of eight different themes were selected and "Crisis and Risk Management" was one of them. Most of the other themes were related to education assistance, but this particular theme was selected in addition to them. It was because, as the host nation, we wished to share the lessons we learned from the Great East Japan Earthquake experienced in 2011 with people involved in distance-learning university education around the world.

In the course of the Program Committee's preparations for the conference, Tsuneo Yamada, the Committee Chair, proposed on having a special session under this very theme. He explained that, as a host university, it is desirable to have some kind of featured program planning, and he thought a session under the



theme of "Crisis and Risk Management" was the most appropriate theme. The Committee approved the proposal and Yamaoka, the reviewer in chief for the specific theme, was selected to be the person in charge. Yamaoka asked Nara for her cooperation and they worked together in planning the Special Session. In selecting the participants, two candidates were the first to be named; Takashi Mikuriya, the vice-chairman of the Reconstruction Design Council in response to the Great East Japan Earthquake, an advisory panel set up by the Government of Japan, and a professor of political science at OUJ, and Tokumi Saito, Iwate Prefecture Great East Japan Earthquake and Tsunami Reconstruction Committee, Strategy and Planning Expert Committee Chairperson, and the Director, Iwate Study Center of OUJ. Based on this, it was decided that Nara, who had actually been engaged at OUJ in responding to the Great East Japan Earthquake and establishing a risk management system, would make a presentation in person jointly with Tamae Onishi, a Trustee of OUJ, who was the Director of the same task. Also, at Nara's suggestion, it was decided to ask Nobuhiro Mori, an MA student of OUJ, who was conducting research based on his experience in the Great Earthquake, to make a presentation. And Yasuhiro Kawahara, an associate professor of OUJ who was advising on Mori's master thesis, was asked to cooperate in Mori's presentation. All of these people were asked to participate, and the planning proceeded steadily after they accepted the requests.

A noteworthy fact here is that the planning and the selection process for participants were done in a very time efficient manner. This of course was realized because we have Nara who is the risk research specialist, and in addition to that thanks to the fact OUJ has high potential human resources and professionals in the concerned fields. Many talented persons with expertness and experience in various fields are involved in this university. It was made clear that, even in the case of such an unusual function requiring us to response immediately to real-life problems, the OUJ has a huge potential in this area.



On the day of the Session, the intent was explained as follows: The four presentations addressed the efforts to deal with the unprecedented experience of the Great East Japan Earthquake from macro to micro perspectives, in other words, from the view of the country (and the government), the region (Tohoku), a university organization, and a student. The Session was planned for

the purpose of sharing the lessons we Japanese learned from the unprecedented experience with people who gathered to the international conference known as AAOU for sharing their common concerns about distance learning so that we could discuss in greater depth the more general theme of "the response of the university in the face of crisis".

After all presentations were made, the conference was concluded with a question and answer

session mainly based on answering the questions raised from the floor. Because of the limited space, I'd like to call attention to just some of the issues that emerged from question and answer session, considering these as the new challenges for OUJ to deal with. And I'd like to conclude this message by presenting the following challenges of ours.

Mikuriya's presentation included the issue of "construction of archives", the purpose of which is to archive the materials like pictures and images and to enhance their application potency. To solve this issue, we need technological innovation, the promotion of communication, and the enactment or amendment of copyright-related laws and regulations. Similar to this issue, there is a more general issue concerning the relationship between the disaster-proactive rules in ordinary times and the rules during an emergency. In order to construct our response measures against risks, we need to explore the statutes and rules that would truly help us to respond to the real situation at the site, but not constrain us to do so; just as mentioned in Saito's presentation. There should be some ways for OUJ, as a research and education institution, to be able to contribute to solving the issues that have been mentioned. Moreover, we are facing the issue of a shrinking and aging population society, whose seriousness for the nation as a whole as well as the Tohoku District has been reaffirmed by the consequences of the Great East Japan Earthquake. We should continue our current efforts of academic responses to these issues at OUJ. Also, there is the knowledge that we should continue sharing widely, including the knowledge of overseas disasters and the responses to them and the restoration after them, and the knowledge of successful examples from the Great East Japan Earthquake. Including such knowledge sharing, the Open University of Japan should continue developing various educational contents regarding disaster response.





Chapter 2	<b>Educational Performance and Regional Contribution</b>
	of OUJ Study Center

# Educational Performance and Regional Contribution of OUJ Study Centers

# Yumiko Nara, Professor, the Open University of Japan

Ever since the Great East Japan Earthquake, the Open University of Japan (OUJ) has worked on preparing educational curricula relating to disaster risk and crisis management and to provide this to OUJ students as well as widely to citizens and the general public. This chapter introduces some of the specific projects of the OUJ Headquarters and the Study Centers.

# 1. Educational Performance and Regional Contribution of the OUJ Headquarters

# (1) Production and Broadcasting of the OUJ PR Program 'University Window (Daigaku no Mado)'

The OUJ runs its announcement program titled "University Window" on a daily basis. It is a 15-minute program that conveys announcements from OUJ and introduces the students studying throughout the country and their various activities. The contents are updated weekly, thus maintaining the fastest response among all the OUJ programs. The currently running programs and past programs are accessible at OUJ's website:

http://www.ouj.ac.jp/hp/eizou/mado/

In FY2011 and FY2013, a total of 12 programs that dealt with the earthquake disaster were broadcast in the "University Window", etc. The first of them, titled "Responses to the Great East Japan Earthquake", was broadcast on April 8, 2011, the production, planning, and scheduling of which had been promptly launched after the occurrence of the earthquake disaster. The program contained not only reports on the current situation of the disaster-affected Study Centers and Satellite Space but also information on support to disaster-affected students including special measures to extend the due date for tuition payment, free distribution of printed study materials, etc.

Since then, information relating to the earthquake disaster has been continuously sent out, including programs titled "One Year since the Great East Japan Earthquake" and "Two Years since the Great East Japan Earthquake" broadcast on March 10, 2012 and in March 2013 respectively, reporting the latest conditions of students and the Study Centers in the affected areas.

# (2) Production and Provision of Special Lectures

In addition to the ordinary "broadcast classes", the OUJ produces and provides "special lectures". Although both of them are 45-minute programs with content based on academic subjects, they have

the following differences:

The broadcast classes are available on TV, radio, etc., only for the OUJ's students who have enrolled in the course and who intend to acquire accreditation through examinations. Course learning utilizes broadcast study materials and printed study materials combined together in a set. On the other hand, the special lectures are not aimed at accreditation and do not require any printed study materials. Their intention is to reach not only the OUJ's students but also a large number of citizens and the general public through TV and radio. The special lecture is a program in which leading experts in each field give a lecture on their specialized field in a free style or in a more professional style. The faculty members of the OUJ handle the plan proposals for the special lectures.

During the period after the Great East Japan Earthquake, the OUJ recognized that supplying disaster-related academic knowledge widely to the general public has its own social function. Therefore, for the special lectures produced in FY2012 (opened in FY2013), all the faculty and staff of the OUJ were encouraged to proactively plan and propose programs related to the Great East Japan Earthquake.

Among the programs produced in FY2011 (opened in FY2012), there were 2 special lectures on the disaster-related subjects (both on radio), including "Hanshin Awaji Earthquake and the Great East Japan Earthquake" and "Nuclear Power Plant Accident and Agriculture - Even so, farmers sowed seeds." For the programs produced in FY2012, the number further increased due to University-wide promotion, which totaled 4 TV subjects and 2 radio subjects such as "Reconstruction Support and Regional Welfare after the Great East Japan Earthquake" (TV subject), "Lessons for Future - Verification: Fukushima 1 Nuclear Power Plant Disaster -" (TV subject), "Disclosure of Nuclear Information and Freedom of Information Act" (radio subject), and "Why is radioactive ray fearful or not fearful?" (radio subject). Considering that the maximum number of special lectures produced in a fiscal year is limited to 6 TV subjects and 10 radio subjects, the OUJ's attitude to focus on production of the disaster-related special lectures is clearly shown. In FY2013 as well, multiple disaster-related subjects are scheduled to be produced both for TV and radio. It is essential to further deepen this theme in a continuous manner from the viewpoint of human sciences, social sciences, and natural sciences.

# (3) Production and Broadcasting of Broadcast Classes

The OUJ currently offers broadcast classes of more than 300 lecture courses. Each lecture course consists of broadcast study materials (45 minutes x 15 times) and printed study materials (15 chapters in total). "Broadcast classes" constitute the vital part of the educational content, whose plan proposal

is carried out by the full-time teaching staff with due consideration to the education system, academic trends, students' needs, etc. The plan proposal starts more than 2 years before the start of the course and, after its production is decided, the writing and preparation of printed study materials and production of broadcast study materials are completed in 2 years. One of the characteristics of OUJ's broadcast classes lies in its public nature. In other words, as they are offered through public media TV and radio, they are open not only to the OUJ's students but also to all people that can view and listen to them.

Disaster-related and risk-related broadcast classes, in fact, were held even before the Great East Japan Earthquake (for example, "Urban Cities and Disaster Management (2008)" and "Risks and Everyday Life (2007)". In response to the occurrence of the Great East Japan Earthquake, new subjects on disasters, risks, energies, etc., were proposed and have been produced.

Table 1 shows a list of the subjects mentioned above. Those that deal with disasters, risks, and energy issues throughout a total of 15 times (chapters) include, for example, "Disaster Nursing/International Nursing (2014)", "Safety/Security and Regional Management (2014)", "Disaster Prevention of Regions and Cities (2015)", and "Energy and Society (2015)". In addition, there are many subjects that deal with disaster, risks, etc., as a part of their classes. They extend to various fields such as information, welfare, politics, psychology, and family. Approaches have been taken to the disaster-related theme from plural academic disciplines. With these included, a total of 18 lecture courses are to be produced for the broadcast classes started in FY2013 to 2015.

List of subjects related to the Great East Japan Earthquake that were opened/produced in and after FY2012

[able1]						
Undergraduate / Postgraduate	Broad Area of Study	Areas of Study	Subject Title	Opened Year	Media	Lecturer
Undergraduate	Specialized Subjects	Living and Welfare	Towards a New Housing Concept ('13)	2013	TV	Kazuhiko Namba (Emeritus Professor, The University of Tokyo)
Undergraduate	Specialized Subjects	Society and Industry	Japanese Political and Diplomatic History ('13)	2013	TV	Izuru Makihara (Professor, Tohoku University) Takashi Mikuriya (Professor, The Open University of Japan)
Postgraduate	Graduate Stadies	Social and Management Science	Policy and Management of Japanese Technology ('13)	2013	R	Morio Shibayama (Visiting Associate Professor, The Open University of Japan) Chiaki Azuma (Professor, The Open University of Japan)
Undergraduate	General Subjects	General Subjects	Digital Media in Daily Life ('14)	2014	TV	Kumiko Aoki (Professor, The Open University of Japan) Hideaki Takahashi (Associate Professor, The Open University of Japan)
Undergraduate	Specialized Subjects	Living and Welfare	Risk Society and Life Design ('14)	2014	R	Mami Iwakami (Professor, University of the Sacred Heart) Michiko Miyamoto (Professor, The Open University of Japan)
Undergraduate	Specialized Subjects	Living and Welfare	Disaster Nursing and International Nursing ('14)	2014	TV	Mariko Ohara (Professor, The Japanese Red Cross College of Nursing)

Undergraduate	Specialized Subjects	Living and Welfare	Development of Regional Welfare ('14)	2014	TV	Takayuki Hirano (Professor, Nihon Fukushi University) Masaki Harada (Associate Professor, Nihon Fukushi University)
Undergraduate	Interdisciplinary Subjects	Interdisciplinary Subjects	Safety/Security and Regional Management ('14)	2014	TV	Hideyuki Horii (Professor, Graduate School, The University of Tokyo) Yumiko Nara (Professor, The Open University of Japan)
Undergraduate	Interdisciplinary Subjects	Interdisciplinary Subjects	Century for International Volunteers ('14)	2014	TV	Tsuneo Yamada (Professor, The Open University of Japan)
Postgraduate	Graduate Stadies	Clinical Psychology	Advanced Course of Family Psychology ('14)	2014	TV	Kenji Kameguchi (Professor, Graduate School, International University of Health and Welfare)
Undergraduate	Specialized Subjects	Living and Welfare	Public Health ('15)	2015	R	Takao Tashiro (Professor, The Open University of Japan)
Postgraduate	Graduate Stadies	Clinical Psychology	Advanced Course of School Clinical Psychology and Community Assistance ('15)	2015	TV	Osamu Kuramitsu (Professor, The University of Tokyo)
Undergraduate	Core Subjects	Core Subjects	Engineers' Ethics ('15)	2015	TV	Jun Fudano (Professor, Kanazawa Institute of Technology)
Undergraduate	Specialized Subjects	Society and Industry	Disaster Prevention of Regions and Cities ('15)	2015	TV	Akira Wada (Emeritus Professor, Tokyo Institute of Technology) Kimiro Meguro (Professor, The University of Tokyo)
Undergraduate	Interdisciplinary Subjects	Interdisciplinary Subjects	Energy and Society ('15)	2015	TV	Akiyoshi Sakoda (Professor, The University of Tokyo)
Undergraduate	Interdisciplinary Subjects	Interdisciplinary Subjects	Environment and Society ('15)	2015	R	Kazuhiro Ueta (Professor, Graduate School, Kyoto University)
Undergraduate	Interdisciplinary Subjects	Interdisciplinary Subjects	Japan in the World ('15)	2015	TV	Kazuo Takahashi (Professor, The Open University of Japan) Hirohumi Okai (Lecturer, Waseda University)
Postgraduate	Graduate Stadies	Human Life and Health Science	Study of Life Governance ('15)	2015	R	Michiko Miyamoto (Professor, The Open University of Japan) Yumiko Nara (Professor, The Open University of Japan)

<sup>\*</sup>This list contains the subjects that are judged as dealing with earthquake disaster-related matters based on the description of the syllabus.

# 2. Educational Performance and Regional Contribution of Study Centers

# (1) Provision of Face-to-face Courses

The face-to-face course (known as schooling) is a class offered directly by the teaching staff in a classroom, etc. Approximately 3,000 classes are held per year in 50 Study Centers and 7 Satellite Spaces across the country. Matriculated students who aim to acquire the bachelor's degree are required to earn 124 or more credits for graduation, of which 20 credits need to be earned from taking the face-to-face courses.

With or without the imposed requirement for graduation, the face-to-face courses are generally very popular among students. Face-to-face class sessions give an opportunity to ask questions and exchange opinions in a real classroom and to study together with teachers and fellow students. Further, one of the great appeals for students is that the classes with a theme making the best use of the special features of each region (nature, culture, history, industry, etc., of the region) and with a theme concerning "today's society" and which are planned and offered in a most expeditious manner. In

addition, attendance in a face-to-face course is open to all OUJ students across the country and there are more than a few students who take the course beyond the boundaries of regions and Study Centers. In this sense, too, the face-to-face courses are regarded as offering an important opportunity for interaction among students in the OUJ.

Of all the face-to-face courses offered in all the Study Centers across the country during the period of the 1st semester FY2011 to the 1st semester FY2013, the number of subjects that dealt with themes totaled 120, including "earthquake disaster", "disaster", "tsunami", "earthquake", "disaster prevention", "risks", "risk management", "nuclear power generation", "energy" and similar topics.. They include, for example, "Earthquake and Disaster Mitigation" (Tokushima Study Center), "Mega-Earthquakes and Disaster Prevention Strategies" (Kochi Study Center), "Risk Communication" (Miyagi Study Center), "East Japan Great Earthquake Disaster and Revival of Fukushima" (Fukushima Study Center), "Four Methods on the Mitigation of Seismic Damages" (Saitama Study Center), "Prepare to Earthquake Damage - Relation between Situation of Damage and Subsurface Structure" (Tottori Study Center), "Pursuing a Safe and Secure Society" (Hokkaido Study Center), "Nuclear Plant Accident and Radioactive Contamination" (Fukushima Study Center), and "Atomic Power Plant and Radio Active Materials, the Accident and Revival" (Tokyo Shibuya Study Center).

The majority of the lecturers are those who were chosen from networks of the directors of Study Centers and the visiting (associate) professors and who willingly agreed to participate.

Planning of the face-to-face courses, in principle, is entrusted to each Study Center. In other words, the staff of each Study Center discuss themes and lecturers in due consideration of the balance among 5 courses and students' needs. In fact, even after the occurrence of the Great East Japan Earthquake, no policy has been issued by the Headquarters to the Study Centers regarding planning of disaster-related face-to-face courses. Nevertheless, subsequent to the unprecedented great earthquake, each Study Center started on its own initiative to plan the courses that respond to students' needs. From the beginning, the Study Centers had always been serving a large role at the front line of the OUJ. Efforts to identify the study needs of students in the region and to reflect them on the study support are ongoing every day. The ability to provide as many as 120 courses is the result of these efforts.

#### (2) Provision of Open Lectures

Each Study Center of the OUJ holds open lectures not only for the OUJ's students but also for supporting life long study of the region's people. Discretion with regard to them is left to each Study Center. More specifically, selection of lecture themes and frequency as well as venues for the lecture meetings are discussed and decided by the director and staff of each Study Center in light of the

characteristics and needs of the region.

The following is the details of the open lectures that were held on themes associated with earthquake, disaster, risks, radioactivity, nuclear power, energy, etc., at Study Centers across the country in FY2011 and 2012: the number of hosting Study Centers: 30, the total number of lecture meetings held: 73, the total size of audiences: 4,340 persons (Table 2). After the Great East Japan Earthquake, a number of lectures have been held on themes related to natural disasters including earthquake and tsunami, nuclear power plant accidents, radioactive emissions, and risk management.

It is noteworthy that many of the lectures were given by the Study Center directors themselves. Especially, Prof. Tokumi Saito, who is the director of the Iwate Study Center (specializing in regional disaster prevention engineering), and Prof. Ryohei Nishida, who is the director of the Tottori Study Center (specializing in seismology), energetically served as lecturers during both years. Meanwhile, many lectures have been given by experts from researchers' communities and local circles through the network of the Study Centers. In some cases, the full-time teachers of the OUJ have served as lecturers.

When we look at the regions where open lectures were held, we see that lectures on disaster-related themes have been conducted widely across the country, not just in the Tohoku afflicted areas of the Great East Japan Earthquake. Even in the areas in Tokyo forecast to be affected in the future by an earthquake of top intensity over a wider area as well as the Nankai Trough earthquake, both of which are anticipated to occur, many lecture meetings have been held. Moreover, we can see that many lecture meetings have been planned throughout the country relating to the earthquake disaster. It is clearly seen that mobility of the Study Centers has been demonstrated, responding to increasing needs of citizens and the general public across the country to learn about disasters, although there were some differences in details and degrees of interest.

Table2

List of Open Lectures related to the Great East Japan Earthquake held by Study Centers (FY2011-FY2012)

As of March 1, 2013

No. of hosting Study Centers: 30, Total No. of open lecture meetings held: 73, Total No. of audience: 4,340

Study Center	Date	Topics of Open Lectures	Lecturer	Venue
	May 1, 2011	Special seminar by Director of the Study Center (emergency theme) -Great Tsunami in the Heisei Era and Reconstruction Issues-	Tokumi Saito, Director of Iwate Study Center, The Open University of Japan (OUJ)	lwate Study Center
lwate	Feb 19, 2012	Life Embraced by the Good Earth of Iwate -Wrestling for over 10 years with illegal dumping of industrial wastes at the prefectural boundary: Leading alarm bell for a mass consumption society-	Tokumi Saito, Director of Iwate Study Center, OUJ	lwate Study Center
	Mar 10, 2012	One Year Since the Great East Japan Earthquake: How has the recovery progressed?	Tokumi Saito, Director of Iwate Study Center, OUJ	Iwate Study Center
Miyagi	Jun 25, 2011	"Front-runner for Nuclear Free Power Generation Is Wood Energy" - Is this statement true?		Ichiban-cho Lobby, Tohoku Institute of Technology

Yamagata	May 28, 2011	For Livelihood Support Related to the Great East Japan Earthquake: Lecture meeting to understand radioactive emissions	Hirohisa Sakurai, Professor, Yamagata University Misao Hachiya, Director of Planning and Promotion Unit, Research Center for Radiation Emergency Medicine, National Institute of Radiological Sciences	Yamagata City Health Care Center
Fukushima (Iwaki)	Jul 10, 2011	Great Tsunami of the Heisei Era and Reconstruction Issues: Case of Sanriku offshore earthquake	Tokumi Saito, Director of Iwate Study Center, OUJ (Chairperson of the General Planning committee, Iwate Prefecture Great East Japan Earthquake and Tsunami Reconstruction committee)	Iwaki Business innovation Center (LATOV 6thFloor)
	Feb 5, 2012	Let's Think about Nuclear Power Generation and New Energy	Yoshihito Ozawa, Visiting Professor, Fukushima Study Center, OUJ	Iwaki Business innovation Center (LATOV 6thFloor)
Fukushima	Jan 13, 2013	OUJ open lecture meeting -Fukushima: Nuclear Power Generation and People-	Ryuichi Hirokawa, Photojournalist	Founding Memorial Hall, Koriyama Women's University
lbaraki	Dec 18, 2011	Lecture meeting for students: Transmitting Wisdom from OUJ Lecture on eating habits and environmental changes  -Diet for Perennial Youth & Long Life from Mitohan Ramen: Learn from Chinene food cultureStudy of Antarctic Ice Sheet Melting Using Surveying Techniques: Monitoring of global environment from measurement of change in the sea levelFuture Prediction of Radiation Levels in the Air of Ibaraki: Statistic consideration of familiar phenomenaRelation between Disaster of Fukusima 1 Nuclear Power Plant and Radioactivity: Impact on environment and health-	Keiko Ishiguro (Living and Welfare Course, OUJ) Yoshifumi Hiraoka (Graduate, Nature and Environment Course, OUJ) Fumio Yamaguchi (Humanities and Culture Course, OUJ) Ryozo Yumoto (Graduate, Nature and Environment Course, OUJ)	HOTEL TERRACE the GARDEN MITO
	Jun 18, 2011	Disaster Prevention Measures for Vulnerable People During a Disaster	Yuji Suzuki, Visiting Professor, Tochigi Study Center, OUJ	Oyama City Central Community Center
Tochigi	Aug 7, 2011	Natural Disasters and Evacuation/Disaster Mitigation	Yuji Suzuki, Visiting Professor, Tochigi Study Center, OUJ Akihiko Ito, Professor, Utsunomiya University	Tochigi Study Center
	Jul 7, 2012	Recovery & Reconstruction from the Great East Japan Earthquake and Local Autonomy	Yuji Nakamura, Visiting Professor, Tochigi Study Center, OUJ	Oyama City Central Community Center
	Aug 13, 2011	Occurrence of M 9.0 Earthquake and Future Earthquake Trend	Fumio Tsunoda, Emeritus Professor, Saitama University	Saitama Study Center
Saitama	Jul 8, 2012	Active Faults and Earthquake Prediction	Takashi Nakata, Emeritus Professor, Hiroshima University / Vice President, The Japanese Society for Active Fault Studies (JSAF)	Saitama Study Center
0.11	Oct 8, 2011	Radioactive Emissions and Radioactivity	Yasushi Arano, Professor, Chiba University	AV Hall, The Open University of Japan Liblary
Chiba	Feb 6, 2013	KaihinMakuhari Seminar Risk Communication - Sharing risk information and mutual understanding -	Yumiko Nara, Professor, OUJ	Makuhari Techno-Garden
	May 28, 2011	Session 1: Lecture meeting -Talks of Astronomy: Stars in the Night Sky and People-Session 2: Panel discussion - Nuclear Power Generation, Radioactive Emissions, and Our Life-	(Lecturer) Sato Hideo, Lecturer, Tokyo University of Science (Panelists) Yasuhiko Fujii, Former Professor, Tokyo Institute of Technology Takaaki Kobayashi, Former Professor, Tokyo Institute of Technology (Moderator) Ken-ichi Aika, Professor, Director of Setagaya Study Center, OUJ	Setagaya Study Center
Setagaya, Tokyo	Jun 18, 2011	Report of Earthquake-Stricken Areas - Report on Visit to Sichuan Province of China and the Tohoku Region -	Yumiko Nara, Professor, OUJ	Iriarai Assembly Room of Ota Ward, Tokyo
	Jun 25, 2011	Easy-to-Understand Interpretation & Discussion by Scientists - Nuclear Power Generation, Radioactive Emissions and Our Daily Life -	(Panelists) Yasuhiko Fujii, Former Professor, Tokyo Institute of Technology Takaaki Kobayashi, Former Professor, Tokyo Institute of Technology (Moderator) Ken-ichi Aika, Professor, Director of Setagaya Study Center, OUJ	Conference Room in Ota Ward Main Government Building
	Dec 9, 2011	Panel discussion: Let's Study the Scientific Aspects of Nuclear Power Generation and Radioactivity Together with Ward Citizens	Yasuhiko Fujii, Former Professor, Tokyo Institute of Technology Takaaki Kobayashi, Former Professor, Tokyo Institute of Technology	Assembly Room in Setagaya Citizen Hall

Setagaya, Tokyo	Feb 18, 2012	Diffusion of Radioactive Substances, Their Effects and Our Life	(Panelists) Yasuhiko Fujii, Former Professor, Tokyo Institute of Technology Takaaki Kobayashi, Former Professor, Tokyo Institute of Technology (Moderator) Ken-ichi Aika, Professor, Director of Setagaya Study Center, OUJ	Machida City Hall
	Feb 22, 2012	Food and Energy: Let's Think about the Future of Japan - Discuss about New Energy and the Future of Japan -	Ken-ichi Aika, Professor, Director of Setagaya Study Center, OUJ	Assembly Room in Ota Ward Consumer Affairs Center
Shibuya, Tokyo	Sep 12, 2012	Seismic Activities in the Southern Kanto Area	Yoshimori Honkura, Professor, Tokyo Institute of Technology	Conference Room in Meguro Ward Office
Bunkyo, Tokyo	Feb 24, 2013	Learning from the Disaster-stricken Area of Iwate: Actual Circumstances of Tunami Disaster and Risk Management	Tokumi Saito, Director of Iwate Study Center, OUJ Shuzo Koshino, Formaer Mission Secretary, General Disaster Prevention Office, Iwate Prefecture Hidehiro Suzuki, Head of Crisis Management Division, Bunkyo-ward	Bunkyo Study Center
	Jun 19, 2011	The Great East Japan Earthquake: Earthquake Occurrence Mechanism and Faults	Makoto Arima, Professor, Yokohama National University	Kanagawa Study Center
	Jun 26, 2011	Learning from the Great East Japan Earthquake: Regional Development of Environment/Disaster Prevention	Satoru Sadohara, Professor, Yokohama National University	Kanagawa Study Center
Kanagawa	Feb 23, 2013	Learning from the Disaster-stricken Area of Iwate: Actual Circumstances of Tunami Disaster and Risk Management	Tokumi Saito, Director of Iwate Study Center, OUJ Shuzo Koshino, Formaer Mission Secretary, General Disaster Prevention Office, Iwate Prefecture Nobutaka Kanai, Head of Crisis Management Measures Division, Kanagawa Prefecture	Kanagawa Study Center
Ishikawa	Nov 20, 2011	Press Report and Risk Management - The Great East Japan Earthquake Disaster and Damage Caused by Harmful Rumors -	Shigekazu Kusune, Visiting Professor, Ishikawa Study Center, OUJ	Ishikawa Study Center
	Nov 30, 2011	Radioactivity	Jyoichi Ueda, Director of Ishikawa Study Center, OUJ	Ishikawa Study Center
	Jan 15, 2012	History of Fukui: Let's think about earthquakes and tsunamis - Tensho Earthquake as a case study -	Shinichiro Tonooka, Visiting Professor, Fukui Study Center, OUJ	Fukui Study Center
Fukui	Aug 11, 2012	Open class/Regional disaster prevention in the case of active faults in Fukui prefecture - My thoughts about Fukui: Visiting the areas striken by the tsunami on March 11 -	Hirofumi Yamamoto, Visiting Professor, Fukui Study Center, OUJ / Professor, University of Fukui	Takaboko Community Center in Sakai City
	Jul 9, 2011	Radioactive Emissions and the Human Body	Goichi Minote, Assistant Professor, Research Center for Human and Environmental Sciences, Shinshu University	Nagano Study Center
Nagano	Oct 15, 2011	Let's Think about Seismic Activity in Nagano Prefecture - Earthquakes in the Pacific Ocean Offshore of the Tohoku Area and Seismic Activity in Nagano Prefecture: In Particular, Earthquakes in the Suwa Area Activity History of the Itoigawa-Shizuoka Active Fault Belt that Passes Through the Suwa Basin and the Earthquakes in Future -	Yoshio Sumino, Professor, Geology, Faculty of Science, Shinshu University Hiroaki Tsukahara, Emeritus Professor, Shinshu University	Citizen Hall in Suwa City
	Feb 18, 2012	Nagano Basin Earthquake Disasters that Occurred in the Past and Are Projected in the Future Zenkoji Temple and Ryokan Buddhist Priest	Hiroaki Tsukahara, Emeritus Professor, Shinshu University Shuji Sato, Student, Nagano Study Center, OUJ	Nagano City Lifelong Learning Center
Shizuoka (Hamamatsu) Satellite Space	Sep 1, 2012	Can Solar Power Generation Take Over Nuclear Power Generation?	Shunro Fuke, Visiting Professor, OUJ	Hamamatu Satellite Space
Shizuoka	Oct 28, 2012	Tokai Earthquake and Nankai Trough Megathrust Earthquake - Occurrence Mechanism and Preparedness -	Mikio Satomura, Professor, Shizuoka University	5th Floor Hall in Shizuoka Chamber of Commerce and Industry
Aichi	Sep 1, 2012	Megathrust Earthquakes Recorded in Historical Documents of Early Modern Period and Tunami Measures Based on the East Great Japan Earthquake	Tsunetoshi Mizoguchi, Professor, Nagoya University	Yamate Hall, Chukyo University
Osaka	Dec 2, 2011	Commemorative Lecture Meeting to Celebrate the 20th Anniversary of the Osaka Study Center The Great East Japan Earthquake Disaster and Future of the World System - Historical Viewpoint	Minoru Kawakita, Emeritus Professor, Osaka University / Professor, Bukkyo University	Osaka Club

	Jul 10, 2011	Masahiko Konomatsu: What is the Message that We Have Received from the Great East Japan Disaster Ritsuko Imamura: Our Clothing Life and Disaster Prevention	Masahiko Konomatsu, Professor, Wakayama University / Visiting Professor, Wakayama Study Center, OUJ Ritsuko Imamura, Professor, Wakayama University / Visiting Professor, Wakayama Study Center, OUJ	Wakayama Study Center
Wakayama	Dec 11, 2011	Joint open course: Revitalization of Our Community & Regional Development - How we live in the coming era - Koji Tsukada: Intelligent Living Brought by Smart Phone: Convenient, Pleasant, and Safe Nobuaki Koike: Disaster Mitigation Effect of Breakwaters & Embarkments Against Tsunami of the Great East Japan Earthquake	Koji Tsukada, Associate Professor, Faculty of Systems Engineering, Wakayama University Nobuaki Koike, Associate Professor, Wakayama National College of Technology	Gobo City Central Community Center
	Dec 15, 2012	Safe and Secure Environment for the Future Lecture 1: Truth of the Great East Japan Earthquake, Not reported by the media Lecture 2: How do You Protect Your Life During an Emergency?  - What Should be the Lessons of March 11	(Lecturer1) Tokumi Saito, Professor, Director of Iwate Study Center, OUJ (Chairperson of the General Planning committee, Iwate Prefecture Great East Japan Earthquake and Tsunami Reconstruction committee, (Lecturer2) Masahiko Konomatsu, Visiting Professor, OUJ / Professor, Center for Research and Education of Disaster Reduction, Wakayama University	Lecture Room in Wakayama Prefectural Library
	Apr 13, 2011	How does an Earthquake and Tunami Occur?	Ryohei Nishida, Director of Tottori Study Center, OUJ	Multipurpose Hall in Tottori City Library
	Oct 4, 2011	Let's Think About the Great East Earthquake Disaster - (1) Was the Great East Earthquake Disaster Unforeseeable?-	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	Oct 11, 2011	Foundation to Manufacture Reliable Products - (1) "Nuclear Power Generation and the Recent Accidents-	Naoki Okamoto, Visiting Professor, Tottori Study Center, OUJ	Tottori Study Center
	Nov 24, 2011	Let's Think about the Great East Earthquake Disaster - (2) Was the Great East Earthquake Disaster Foreseeable?-	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	Dec 8, 2011	Let's Think about the Great East Earthquake Disaster - (3) What can we learn from the Great East Earthquake Disaster?	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	May 18, 2012	Tsunami Disasters that Can Occur around the Japanese Islands - (1) Tsunami in the Sea of Japan and Corresponding Damage-	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
Tottori	Jun 14, 2012	Tsunami Disasters that Can Occur around the Japanese Islands - (2) Tsunami by Nankai Earthquake and Corresponding Damage		Tottori Study Center
	Jul 12, 2012	Tsunami Disasters that Can Occur around the Japanese Islands - (3) Predicted Tsunami and Tsunami Measures in Tottori Prefecture -	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	Oct 25, 2012	Various Discussions of Earthquake/Hot Springs/Disaster Prevention in Tottori Prefecture - (1) From Tottori Earthquake (1943) to Western Tottori Earthquake (2000) -	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	Nov 22, 2012	Various Discussions of Earthquake/Hot Springs/Disaster Prevention in Tottori Prefecture - (2) Earthquake Prediction and Hot Springs, and Survey of Underground Structure in Hot Spring Areas -	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	Dec 20, 2012	Various Discussions of Earthquake/Hot Springs/Disaster Prevention in Tottori Prefecture - (3) Participating in Regional Disaster Prevention Program (Disaster Measures) of Tottori Prefecture -	Ryohei Nishida, Director of Tottori Study Center, OUJ	Tottori Study Center
	Jun 18, 2011	Science of Nuclear Power Generation	Seiki Saito, Director of Okayama Study Center, OUJ / Former Professor, Okayama University	Okayama Prefectural Library
	Jul 2, 2011	Let's Think about the Nuclear Disaster - Things Happening in the Fukushima 1 Nuclear Power Station	Katsuji Sezaki, Researcher, Former Japan Atomic Energy Research Institute	Okayama Prefectural Library
Okayama	Aug 21, 2011	Let's Think about Nuclear Disasters - In Order to Correctly Understand Radioactive Emissions and Radioactivity -	Mikiro Tada, Former Visiting Professor, Okayama Study Center, OUJ / Professor, Chugoku Gakuen University	Okayama Prefectural Library
	Oct 1, 2011	Proposition of Political Measures for Recovery from the Great East Japan Earthquake - In relation to the sea	Shin Kisugi, Vice-president, OUJ	Belleforet-Tsuyama in Alne- Tsuyama
	Nov 10, 2011	Let's Think about the Nuclear Disaster - Things Happening in the Fukushima 1 Nuclear Power Station	Katsuji Sezaki, Researcher, Former Japan Atomic Energy Research Institute	Ochiai Community Center of Maniwa-city
	Nov 18, 2011	Let's Think about Nuclear Disasters	Katsuji Sezaki, Researcher, Former Japan Atomic Energy Research Institute	Saidaiji Minami Elementary School

Hiroshima	Feb 12, 2012	(1) The Great East Japan Earthquake: Viewpoint of a sociologist (2) Volunteer Activity in Miyako City of Iwate Prefecture and Legal Support for Disaster Victims	Junsuke Hara, Director of Miyagi Study Center, OUJ Shigeru Toriyabe, Visiting Professor, Hiroshima Study Center, OUJ	Hiroshima Study Center
Yamaquchi	Aug 6, 2011	Environment and Energy	Tadato Mizota, Emeritus Professor, Yamaguchi University	Shimonoseki City Lifelong Learning Plaza
	Aug 11, 2012	Let's Learn about Radioactive Emissions	Hitoshi Taniguchi, Visiting Professor, OUJ	Shunan City Cultural Hall
	Dec 10, 2011	History of Earthquakes and Tsunami in Tokushima - Preparing for the Predicted Nankai Earthquake Based on Historical Documents -	Hideo Suzuki, Doctor of Tokushimalogy	Assembly Room in Tokushima Prefectural Library
	Apr 7, 2012	Correct Knowledge of Radioactive Emission Contamination - Worry Based on Correct Knowledge -	Hirokazu Miyoshi, Associate Professor, The University of Tokushima	Tokushima Prefectural Library
Tokushima	May 12, 2012	What Disaster Has Brought into 'People's Minds' - Basic Knowledge of Psychological Changes -	Chigusa Uchiumi, Lecturer, The University of Tokushima	Tokushima Prefectural Library
	Jul 28, 2012	Accidents Caused by Radioactive Substances	Junko Motonaka, Visiting Professor, OUJ	Yamashiro Community Center
	Dec 8, 2012	Ham Radio as a Public Communication Means during large scale Disasters - Comparison of Good Use Between Japan and the US -	Katsutoshi Ueno, Associate Professor, The University of Tokushima	Tokushima Prefectural Library
	Aug 7, 2011	Earthquake Environments in Shikoku	Jiro Takahashi, Professor, Faculty of Education, Ehime University	Ehime Study Center
Ehime	May 6, 2012	Looking Back the Great East Japan Earthquake	Jiro Takahashi, Professor, Faculty of Education, Ehime University	Ehime Study Center
	Aug 11, 2012	Median Tectonic Line and Active Faults	Jiro Takahashi, Professor, Faculty of Education, Ehime University	Ehime Study Center
Fukuoka			Hisanori Otsuka, Professor, Faculty of Engineering, Kyushu University	Fukuoka Study Center
Como	Jun 19, 2011	Radioactive Emissions and Our Life	Keiichi Watanabe, Professor, Faculty of Agriculture, Saga University	Avance (Saga Prefectural Lifelong Learning Center)
Saga	Dec 21, 2011	Economic Situations of Japan and the World after the Great East Japan Earthquake	Ryuji Tajiri, Director, Bank of Japan Saga Office	Avance (Saga Prefectural Lifelong Learning Center)
Kumamoto	Apr 15, 2012	Earthquake and Building - Is Your House OK? -	Tatsuro Sakimoto, Director of Kumamoto Study Center, OUJ	Kumamoto Study Center

<sup>\*</sup> This list contains the open lecture meetings held during FY 2011 and 2012 including only those that dealt with a theme related to earthquakes, disasters, risk, redioactivity, nuclear power, energy, and similar topics.

# 3. Consolidation of Nationwide Strength - Potential of the OUJ -

I have so far introduced the educational performance and regional contribution of the Headquarters and Study Centers of the OUJ. Because the OUJ is capable of sending out information through broadcast media, such as TV and radio, and has rich faculty resources including full-time, visiting, and part-time teaching staff, the OUJ can cover a wide range of academic fields. All the more, because it has 50 Study Centers across the country, it can speedily identify needs and appropriate the educational resources through its network. The future potential is very positive for the OUJ to contribute to society while carrying out its role as an educational institute through making the best use of these characteristics.

From a review of the past efforts made by the University after the Great East Japan Earthquake, it is seen that the social functions of the OUJ have been demonstrated in practice rather naturally, not intentionally, in the course of various attempts having been autonomously carried out mainly by the Study Centers. The autonomous nature as shown here may well be proof of accomplishment that has been nurtured by the OUJ in spite of its short history of 30 years since its founding.

In the meantime, the Headquarter and the Study Centers of the OUJ were not the only parties who were willing to serve the social functions regarding the Great East Japan Earthquake in an autonomous and voluntary manner. They are students and alumni of the OUJ. At the end of this chapter, with a slight deviation from the main theme of the chapter, I would like to mention them. Since the Great East Japan Earthquake, there have been a number of cases in which the OUJ's students and alumni worked as volunteers to support the affected Study Centers and the students there. Their activities have taken various forms, such as sending relief supplies, dubbing and delivering the broadcast study materials, and helping clean up the rubble. Some groups are still continuing their support even today, two years since the Earthquake. Thus, the students and alumni throughout the country who live outside the affected areas and who felt a deep concern about schoolmates have made significant contributions. Although the precise data of the number of cases and people involved and the details of the support activities have not been compiled yet, what can be said with certainty is that these supports have been implemented in an autonomous and voluntary manner. These actions implemented by the students and alumni who are the University's major stakeholders can be said to manifest to a certain degree of maturity of the OUJ as a social organization and its immense potentiality that lies ahead.

Chapter 3	Risk Management System of the Open University of
	Japan

Risk Management System of the Open University of Japan

Risk Management Committee, the Open University of Japan Foundation

1. Earthquake Disaster Information (the Tohoku Region Pacific Ocean Offshore Earthquake) and Damage Situation, etc., of OUJ

(1) Earthquake Disaster Information (the Tohoku Region Pacific Ocean Offshore Earthquake)

• Time and date of occurrence: 14:46, March 11 (Friday), 2011

• Epicenter: Off Sanriku

(Approximately 130km ESE off Oshika Peninsula at a depth of about 24km)

• Earthquake size: Magnitude 9.0

• Intensities in various areas:

Intensity 7: Kurihara City, Miyagi Prefecture

Intensity 6 upper: 28 municipalities in the 4 prefectures of Miyagi, Fukushima, Ibaraki, and

Tochigi

Intensity 5 upper: Wakaba, Mihama Ward of Chiba City (location of the OUJ Headquarters)

# (2) Damage Conditions

- 1) OUJ Headquarters (including the Chiba Study Center)
  - a) Human casualties

There were no human casualties among officers, faculty, or staff.

The method used to check if people were safe was to conduct a roll-call of the officers and staff (not including faculty members) at work that day and to telephone, email, or otherwise contact those on leave or on a business trip. Meanwhile, safety confirmation for the faculty started on the following day, March 12, using telephone, e-mail, etc., and this information was finalized on March 15.

b) Property damage

In Wakaba, Mihama Ward of Chiba City where the Headquarters of OUJ are located, the facilities of OUJ, such as the administration building, sports field, University library, and also the Chiba Study Center, are located on the same premises. The damage included, for example, cracking at joints at the entrance of the headquarters administration building, gaps created with the surrounding soil of the Chiba Study Center due to land subsidence, accumulation of dirt on the sports field caused by liquefaction, scattered books and some overturned book shelves in

the open-stack room on the 2nd floor of the library, and overturned book shelves and laboratory instruments in the faculty laboratories.





# 2) Study Centers (not including the Chiba Study Center)

# a) Human casualties

There were no human casualties among faculty and staff.

For safety confirmation, the administrative section conducted confirmation by means of telephone and e-mail

# b) Property damage

There was no particular damage to the buildings themselves. However, at 5 Study Centers (Iwate, Miyagi, Akita, Yamagata, and Fukushima) as well as 2 Satellite Spaces (Hachinohe and Iwaki) in Tohoku District, and at 5 Study Centers (Ibaraki, Tochigi, Tokyo Bunkyo, Tokyo Adachi, and Tokyo Tama), there was such damage as overturned book shelves, scattered books, partial collapse of a wall, and power cut. While, in general, the affected Study Centers and Satellite Spaces were closed for about 1 to 2 weeks, the Study Centers in Miyagi and Fukushima as well as the Satellite Spaces in Hachinohe and Iwaki were closed for more than 3 weeks.

# 3) Students

As the OUJ is a distance learning university, safety confirmation for students was conducted based on the following information being collected by Headquarters:

#### <OUJ Headquarters>

- Safety confirmation by the persons responsible for study guidance and by the faculty in charge
- Confirmation based on payment information (payment of tuition fees after March 16, 2011 and the application for payment deferral)
- Confirmation by state of mail delivery (arrival/non-arrival of mails)
- Confirmation by contact received directly from students themselves (inquiries to the

administrative section)

- Confirmation by sending notices regarding exemption of tuition fees, etc., to students who had paid tuition fees
- Confirmation by sending a prepaid reply postcard to students who were delinquent on tuition fees (students on leave of absence, unregistered students)
- Confirmation by delivery of diplomas/certificates to the graduates and students completing courses
- Confirmation based on accreditation tests and information from the affiliated schools
- Confirmation based on state of submission of correspondence assignments
- Confirmation based on follow-up calls regarding submission of correspondence assignments
- Confirmation based on registration of the 2nd term courses and application for accreditation tests
- Confirmation by a telephone call from the administrative section (Students Support Center). <Study Centers, etc.>
- Confirmation based on attendance at face-to-face courses
- Confirmation by contact made directly to the Study Center, etc., by the students

# 2. OUJ's Responses to the Great East Japan Earthquake

# (1) Responses Made by the OUJ Headquarters Immediately after the Earthquake Disaster

On March 11 (Friday), 2011, when the Great East Japan Earthquake (the Tohoku Region Pacific Ocean Offshore Earthquake) occurred, the Chairperson of the Open University of Japan (hereinafter called the "OUJ") was in Tokyo (at the Tokyo Liaison Office of OUJ) while the President and trustees were in Makuhari (OUJ Headquarters),. Therefore, the response measures of the OUJ Headquarters were issued mainly by trustees to the administrative section. The administrative section worked on safety confirmation for the faculty and staff, and also collection of information by contacting the Study Centers, etc., in the disaster-stricken areas.

In the morning of the following day, March 12 (Saturday), a meeting was held, led by the trustee in charge of general affairs and other managers of the administrative sections who were in the office, to assess the current circumstances and discuss future countermeasures. Based on this discussion, the administrative section continued to work on safety confirmation of the faculty and staff, and to collect information by contacting the Study Centers, etc., in the disaster-stricken areas. In addition to the above, the administrative section was in charge of the emergency investigation of facility damage and emergency repairs of damaged areas, as well as responding to telephone inquiries, etc.,

from students.

On the following day, March 13 (Sunday), in response to the announcement from Tokyo Electric Power Co., Inc. titled "Implementation of rolling blackouts due to a power supply shortage and request for further energy conservation," the OUJ decided to work on conserving energy at the OUJ Headquarters.

On March 14 (Monday), as transportation in the Tokyo Metropolitan area was paralyzed due to the effects of the rolling blackouts and commuting by private cars was made difficult due to a gasoline shortage, the situation remained such that things had to be handled using just the staff who could commute to work. On the same day, with the aim to promptly respond to the Great East Japan Earthquake disaster, the Tohoku Region Pacific Ocean Offshore Earthquake task force (later renamed the Great East Japan Earthquake task force of OUJ) was established, led by the trustee in charge of general affairs. Further, in the General Affairs Section, the in/out of the officers and others, the rolling blackout schedule, and other relevant information was posted on a dedicated whiteboard to improve information sharing.

# (2) Specific Responses Taken by the OUJ Headquarters

#### 1) Establishment of the Great East Japan Earthquake task force of OUJ

The Great East Japan Earthquake task force of OUJ was established on March 14, 2011, to take prompt and appropriate measures to respond to the Great East Japan Earthquake, and this task force has been responsible for deciding the basic direction to take for the Earthquake disaster countermeasures (Since the 1st meeting on March 15, 2011, 9 meetings have been held as of April 25, 2012).

# 2) Restoration of Facilities and Equipment

a) OUJ Headquarters (including the Chiba Study Center)

Restoration of campus pavement and land subsidence areas, repair of book shelves in the library, and restoration of the cracked sports field were begun and completed on October 21, 2011.

b) Study Centers (not including the Chiba Study Center)

Repair of walls of the Study Center buildings and replacement of damaged equipment, such as broadcast study materials and storage racks, were carried out and completed on September 5, 2011.

# 3) Study Support for Disaster-affected Students

Toll-free telephone numbers for exclusive use in the affected areas were set up on March 16,

2011, and the Student Support Center received various inquiries during the period from March 28 to June 10. Further, for students who lost printed study materials due to the Earthquake disaster, replacement materials were provided free of charge. For those who lived in the Tohoku and Kanto regions and had difficulty paying enrollment/tuition fees, a payment deadline extension (from March 31 to April 28, 2011) was put into practice.

# 4) Broadcasting

A power outage occurred immediately after the Earthquake at the Shobu broadcasting relay station (Kuki City of Saitama Prefecture) and rolling blackouts affected the Maebashi FM broadcasting relay station (Maebashi City, Gunma Prefecture) from March 14 to March 24, 2011. However, both of these facilities were backed up by private power generators, so there was no interruption to broadcasting. Further, in response to the government's request for electric power conservation, broadcasting of programs in the early morning (6:00 - 7:30) and during nighttime (after 21:30) was suspended during the rebroadcasting period of March 17 to March 31, 2011.

#### 5) Information System

There was no disaster-related damage to the information system related equipment.

6) Degree Conferment Ceremony, Graduation/Completion Parties, Graduation Certificate, and Related Matters

The "FY2010 (Heisei 22) OUJ degree conferment ceremony" and the graduation/completion party were cancelled. The graduates and completing students of FY2010 were to be invited to the degree conferment ceremony, etc., held on March 24 of the next year.

# 7) Receiving Donations and Disaster Sufferers

Donations for the disaster-stricken areas were solicited from April 1 to April 15, 2011 and were sent to the Japanese Red Cross Society. In addition, donations for OUJ affiliated persons (commonly known as the Great East Japan Earthquake Mana-P Fund) were solicited from April 20 to August 31, 2011, and were distributed to disaster-stricken students and faculty/staff members as grants or consolation payments. Further, during the period ending on July 31, 2011, the OUJ's "Seminar House" was registered with the government as a potential shelter for people affected by the disaster.

# 8) Responses to Rolling Blackouts and Electricity Supply-demand Measures in Summertime

As a result, although rolling blackouts were not implemented in the area of the OUJ Headquarters, it was decided that the basic policy would be to continue broadcasting even during rolling blackouts. During the summer of 2011, in response to the request to curb the maximum power consumption by 15% from the previous year for the entire region covered by the Tokyo Electric Power Co., Inc., and the Tohoku Electric Power Co., Inc., the OUJ formulated a plan to the reduce power consumption of the OUJ Headquarters district (including the Chiba Study Center) and implemented a power conservation plan. It was also decided how to respond in the event of an unforeseen large-scale blackout.

# 9) Broadcast of Earthquake Disaster-related Programs

Various Earthquake disaster-related programs were broadcast in the announcement program "University Window". In addition, special lectures were broadcast on TV and radio. (See Chapter 2 1 (1) and (2).)

# 10) Other Measures

Disaster prevention drills were conducted in preparation for an unexpected earthquake disaster. To prepare for other possible disasters, the OUJ has worked on flood prevention measures for the broadcasting equipment and information and other systems, overturning prevention measures for book shelves, etc., expansion of stockpiles in case of a disaster, and other measures.

# 3. Establishment of the Risk Management System for the OUJ

# (1) Establishment of the Study Committee for the Risk Management System, etc., of the OUJ

The OUJ had always maintained a certain level of risk management applicable to each event. However, the Great East Japan Earthquake made us realize once again the necessity of establishing a University-wide risk management system, and so the "OUJ Risk Management System Study Committee" was established to discuss issues necessary to implement a risk management system for the OUJ.

The Study Committee held discussions and made decisions on the emergency contact system and disaster stockpile necessary in the event of an emergency. It also formulated the "Risk Management Regulations of the OUJ Foundation (draft)" and the "Basic Guidelines for Risk Management of the OUJ Foundation (draft)".

# (2) Adoption of the Risk Management Regulations of the OUJ Foundation

With the aim to ensure the safety of officers, faculty, staff, and students of the OUJ and to sustain educational and research activities and the stable provision and administration of broadcast classes, the "OUJ Foundation for Risk Management Regulations of the OUJ"1 was adopted. The Regulations prescribe the risk management regulations and response measures of the OUJ Foundation for promptly and appropriately responding to risks associated with various events occurring in the OUJ. Further, in addition to the above, the "Basic Guidelines for Risk Management of the OUJ Foundation"2 which provide basic guidelines and frameworks for risk management measures of the OUJ were formulated.

#### Risk Management System of the OUJ Foundation **During normal times** During the emergency period During the restoration period Risk Management Committee (permanent) Crisis Response Headquarters **Risk Management Committee** Preparation, etc., of University-wide risk Collection & analysis of information on crises Dissolution of Crisis Response · Decision-making & implementation of necessary Headquarters · Training sessions, etc., to improve risk awareness in measures during a crisis Transfer of work to the Risk faculty and staff Provision of information on crises Management Committee · Evaluation and review of risk management measures and other measures Recording & filing of responses · Establishment of a reporting/communication · Creation of manuals in preparation for emergency Analysis & evaluation system and personnel call-up system Implementation of reoccurrence Clarification of the division in charge · Implementation of trainings/drills · Safety confirmation, etc. prevention measure Risk Management Regulations Basic Guidelines for Risk Management To be improved Reference model for Study Center Basic Risk Management Manual (for Headquarters) Manual responding to Manual responding to Risk management ndividual critical events individual critical events manual responding to Example) Unauthorized Example) Leaking of private University-wide Example) Manageme use of research nformation face-to-face lecture expenditures manual responding to critical events Manual responding to Example) Management of Manual responding to University-wide Risk individual critical event individual critical events Risk management Management Manual According

# (3) Provision of the Risk Management Committee of the OUJ Foundation

to the Event

Example) Earthquake, wind and flood damage, fire, etc.

Headquarter district

Example) Broadcast interruption

As the risk management system during normal times, the Risk Management Committee of the OUJ Foundation was established in April, 2012, to discuss necessary issues related to risks and to

manual responding to

critical events

Study Centers, etc.

<sup>&</sup>lt;sup>1</sup> http://www.ouj.ac.jp/hp/kitei/PDF/3-3/kikikanrikisoku.pdf

<sup>&</sup>lt;sup>2</sup> http://www.ouj.ac.jp/hp/kitei/PDF/3-3/kikikanrikihonsisin.pdf

put the corresponding measures into effect. The Committee has so far prepared University-wide manuals and conducted training sessions and drills to improve risk awareness in faculty and staff.

# (4) Preparation of the Basic Risk Management Manual of the OUJ Foundation

The "Basic Risk Management Manual of the OUJ Foundation" and the "University-wide Risk Management Manual According to Events" were prepared by the OUJ Risk Management Committee. The former provides the framework for risk management for the entire OUJ Foundation, while the latter sets forth the specific procedures, etc., regarding risks associated with individual events. Further, this manual defines the implementation of preventive measures, such as raising crisis consciousness, improving risk management organizations to respond to possible risks, and performing training; implementation of emergency measures to collect and distribute information and to ensure the safety of human lives; and implementation of post-disaster measures such as responses for affected people. Based on the responses to the Great East Japan Earthquake, this manual was especially intended to provide detailed and practical content that can also be applied to critical events other than earthquake disasters.

# (5) Preparation of Faculty and Staff Risk Management Handbook of the OUJ Foundation

In addition to preparation of the above-mentioned manuals, in order that each faculty and staff member can take prompt and appropriate measures in the event of a crisis, the "Faculty and Staff Risk Management Handbook of





the OUJ Foundation" was prepared and distributed to all the officers, faculty, and staff of the OUJ Headquarter. There was a concern that the responses to the

Earthquake disaster would fade away from memory after some time or might not be properly taken over through personnel changes. This concern especially applies to the OUJ because of its unique feature that the staff

consists of many experts on loan from affiliated government agencies, other universities, etc. Thus, the Risk Management Handbook has been prepared so that it can be carried by each faculty and staff member on a regular basis so that they can take action based on the manual in an organized manner, and because it was considered necessary to deepen understanding through training sessions and drills on a continuous basis.

# (Example of content of the Faculty and Staff Risk Management Handbook



# 4. Future Issues Regarding Risk Management for the OUJ

While efforts have been made to develop the risk management system of OUJ and to prepare University-wide manuals, it is also necessary to develop manuals that explain specific procedures, etc., for responding to risks associated with each individual event. The current state of manual development is now under examination at the Risk Management Committee of the OUJ Foundation. Meanwhile, the responsible section of the administrative sections has organized the development of individual manuals to deal with possible critical events that may occur in the immediate future, specific responsive procedures concerned, past cases of crisis and the corresponding responses, as well as future issues that are considered important. They have been summarized into the "Development List of Manuals for Responding to Individual Critical Events" so that the information can be shared University-wide. At the same time, the development of individual manuals will be examined continuously and the future issues that are identified as important by the responsible section will be pursued.

Including the Study Center in Mihama Ward of Chiba City where the Headquarters are located, the OUJ has 50 Study Centers and 7 Satellite Spaces throughout the country. Study Centers, etc., are providing not only face-to-face lecture classes and accreditation tests but also offering students services and other education support, such as free access to past broadcast courses, study consultation, and curriculum consultation, which are therefore accessed not only by the faculty and staff but also by students. With this in mind, the Risk Management Committee of the OUJ Foundation prepared the "Basic Guidelines for Risk Management of OUJ Study Centers, etc.", distributed this to Study Centers, etc., and requested that each Study Center prepare its own manual. The goal is to have the manuals completed at the earliest possible date so that the safety of the faculty, staff, and students can be ensured at every Study Center, etc., in the event of a crisis.

Conclusion - The Open University of Japan: After Overcoming the Earthquake -

#### Conclusion

# - The Open University of Japan: After Overcoming the Earthquake -

When the Great East Japan Earthquake hit Japan, the faculty and employees of the OUJ were pressed to make decisions in various situations as to what they could and should do in regard to OUJ. Through these decisions, it has become clear what kind of mission OUJ has, the roles it is expected to take, and the functions it fulfills.

Though they have already been mentioned in this report and explained in detail during the presentation at the AAOU2012 special session "Crisis and Risk Management", I would like to lay out these attributes of the OUJ.

# 1. As a Distance Education Institution

To begin with, the OUJ is a university which offers correspondence courses based on the premise of students' autonomous and voluntary learning; therefore, it is rare for the university to contact students personally and in many cases students contact the university if necessary. For this reason, it was not easy to confirm the safety of students who were in the disaster-stricken areas right after the earthquake because the usual means of communication, including e-mails and phone calls, were cut off. Additionally, many of the students who were affected by the earthquake had their own jobs, so it is assumed that they gave priority to securing their job and living environment and did not have enough time to think about contacting the university. The fact that we were unable to confirm the safety of all students even with any and all conceivable measures was unacceptable for a traditional university. Though it is a fate of a distance education institution, it will continue to be an issue.

On the other hand, we succeeded in supporting the students who were affected by the earthquake to continue their education by employing a flexible education system. We allowed students to change their study centers from the ones in the disaster-stricken areas to the ones in evacuation areas and had a 2-semester system to enable enrollment for the courses two times a year, thereby enabling them to formulate learning plans depending on their living conditions. This is something unique to an open university with a nationwide network.

# 2. Broadcast Lectures

Since the students of the OUJ are everywhere across the nation, there is always a possibility that students may be affected in the event of a major disaster, and at the same time it is necessary for the university to provide educational services, including broadcast lectures, as usual to those who are not in affected areas.

Continuing with the broadcasting of lecture programs as planned is an obligation of the OUJ which has been specially authorized to use the radio waves in accordance with the Broadcast Act and been given a license as a broadcasting station by the country in accordance with the Radio Act.

In particular, we are exempt from the so called obligation to make an effort to broadcast disaster-related programs that is imposed on other private broadcasting companies and Nippon Hoso Kyokai (NHK) because the broadcast lecture programs of the OUJ are purely a curriculum-based educational activity. After the earthquake, only the OUJ was permitted to broadcast lecture programs as usual while other TV and radio stations were broadcasting disaster-related programs.

# 3. Activities as an Educational Institution

However, after the earthquake, OUJ was able to widely provide information to the citizens by making and broadcasting 'special lectures' and other programs based on earthquake-related academic expertise because it is an educational institution with a broadcasting station. This was done by the recognition of the need for contribution as an educational institution even though we could not broadcast real-time news.

Furthermore, we actively featured contents that were related to earthquake, disaster, radiation, and risk management, etc., when we, as an educational institution, established face-to-face lectures for students as well as open lectures for the general public. The areas of expertise of full-time instructors are wide and diversified because it is a liberal arts institution, and we have assigned the heads of 50 study centers across the nation from local national universities, making use of their researcher network to acquire competent instructors. This has shown the high potential of the educational functions of the OUJ's faculty.

# 4. Organizational Approach to Risk Management

Although it is important to continue broadcasting and to respond to the issues after a disaster, including business continuation at the OUJ's headquarters as well as contacting the study centers and other facilities across the nations, we recognized the necessity for reinforcement of the headquarters functions in both the 'hardware' and 'software' aspects because there had not been an organizational risk response system before.

First, for the hardware aspects, we implemented reinforcement for areas with inadequate disaster response, fall prevention measures, preventive measures against flooding of broadcasting equipment and information systems, reinforcement of communication lines, and expansion of stocks for emergencies.

Second, for the software aspects, we formulated a contact network among faculty members in case of emergencies, established a permanent risk management committee at the university, and developed a system which enables us to establish a response headquarters right away in the event of major disasters. As we considered the risk management system, we reached the conclusion that we needed to become able to respond not only to natural disasters like this time but also to man-made risks; therefore, we formulated response manuals separately for school-wide risks and the risks assumed at each department and conducted training as necessary, broadening our risk response capability. Further, we intend to develop risk management at the study centers and other facilities across the nation in conjunction with the approach of the headquarters while taking into account the actual conditions of the study centers and other facilities.

It is assumed that it may be necessary to set up a substitute headquarters in other areas if Chiba city, where the headquarters is located, is severely damaged, and detailed measures for this is an important issue to be considered in the future.

#### 5. Towards the Future

Our response to the Great East Japan Earthquake made us realize anew that the OUJ is an open university that offers lectures through TV and radio broadcasting, that it has a mission and is expected to take a role as a university open to everyone who is motivated to learn regardless of age, occupation, or residence, and that it is an organization with a high public nature that receives special regulatory treatment by the country for these purposes.

The OUJ has reached its the 30th anniversary of its foundation this year (2013) and is trying to make a new development as a lifelong learning institution which provides higher education through an educational method by making use of new media, for example online services. We would like to steadily proceed with the development while keeping in mind the attributes, which became clear through the disaster response, as an open university/distance education institution with a broadcasting station as well as the lessons learned from the AAOU2012 special session and this report.

March 11, 2013

Trustee of the Open University of Japan Foundation
(In charge of general affairs)

Tamae Onishi

Profiles of Chairpersons and Reporters of Risk Management Session (Brief)

#### Takashi MIKURIYA

Professor of the Open University of Japan, Visiting Professor of the University of Tokyo

Doctor of Philosophy (The University of Tokyo)

Major in Political History of Modern Japan, and Oral History

Serving in positions such as Acting Chairperson of The Reconstruction Design Council in Response to the Great East Japan Earthquake of the Cabinet Secretary, Acting Chairperson of Reconstruction Promotion Committee of the Reconstruction Agency, Chairperson of Archive Control Committee of the Cabinet Office, Advisor of Public Policy Studies Association Japan (PPSAJ), Chairperson of Land Policy Subcommittee of Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Advisor of "Test of Showa History" by Chuokoron-shinsha and Yomiuri, Trustee of Suntory Foundation, etc.

#### Tokumi SAITO

Director of Iwate Study Center of the Open University of Japan, and Emeritus at Iwate University Doctor of Engineering (Tohoku University)

Major in Underground Metrology and Regional Disaster Prevention Engineering.

Contributed to Establishment of the Volcano Disaster Prevention Structure of Mount Iwate. Currently serving as Chairperson of Strategy and Planning Expert Committee of Iwate Prefecture Great East Japan Earthquake and Tsunami Reconstruction Committee, etc, making every effort for restoration from disaster.

Authored "1998 Record of Emergency Response to Eruption of Mount Iwate", "Prevention and Reduction of Regional Disaster, and Roles of Local Autonomies", etc.

# Yumiko NARA

Professor of the Open University of Japan

Doctor of Philosophy (Nara Women's University)

Major in Risk Management Theory

Serving as Member of Committee on Science and Technology for a Safe and Secure Society of Council of Science and Technology of Ministry of Education, Culture, Sports, Science and Technology (MEXT), Member of subcommittee of the Incorporated Administrative Agency Japan Nuclear Energy Safety Organization (JNES) of Assessment Committee of the Cabinet Office, Area Advisor of Research Institute of Science and Technology for Society, Japan Science and

Technology Agency (JST) (Creation of Safe and Secure Community), Trustee of Japan Risk Management Society (JARMS), etc.

#### Tamae ONISHI

Trustee of General Affairs of the Open University of Japan Foundation

At the time of the Great East Japan Earthquake, involved in the earthquake disaster as a general manager of the Great East Japan Earthquake Crisis Response Headquarters of the Open University of Japan Foundation.

Currently, serving as Chairperson of the Risk Management Committee of the Open University of Japan Foundation.

#### Nobuhiro MORI

Clinical Engineer

Graduated from the Liberal Arts Department of the Open University of Japan and currently is a student of the Graduate School of the same University.

At the time of the Great East Japan Earthquake, took care of disaster patients at hospitals. Currently, at Kameda Medical Center in Kamogawa City, Chiba Prefecture, engaged in dialysis as a clinical engineer who operates medical instruments.

#### Yasuhiro KAWAHARA

Associate Professor of the Open University of Japan

Doctor of Philosophy (The University of Tokyo)

Major in System Engineering and Life Science

Serving as a supervisor for Mr. Nobuhiro Mori at the Open University of Japan and studying together with Mr. Nobuhiro Mori with an engineering approach.

Serving as Editorial Chairperson for Human Communication Special Edition of the Institute of Electronics, Information and Communication Engineers (IEICE), Organizer of Advanced Medical Science Technology Time-Limited Research Special Committee of IEICE, Promoter for founding Academy of Human Informatics (AHI), Journal editorial member of AHI, etc.

#### Ryuichi YAMAOKA

Professor of the Open University of Japan

PhD. (University of London)

Major in Political Theory, and History of Political Thought

Serving as Trustee of Japanese Society for British Philosophy.

# Lessons from the Great East Japan Earthquake

- The Open University of Japan: Response and Challenges -

AAOU2012 Special Session Report - Crisis and Risk Management -

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Mascot of The Open University of Japan: Mana-pea



What is Mana-pea?:

A dove learning (manabu) at The Open University of Japan and helping dreams to take flight.

"Pea," which is part of peace, is an onomatopoeia of

a singing dove.



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