

## Emergency Meeting of the Science Council of Japan

### Emergency report on “What can we do now?”

#### **Message from the president**

At the Science Council of Japan Auditorium on March 18, 2011 from 15:00 – 17:20, the Science Council of Japan held an emergency meeting open to the general public regarding the above question. In this meeting, in response to the “Statement of the Executive Committee of the Science Council of Japan” that was issued on the same day, the Science Council of Japan carried out discussions with the general public and media persons regarding “what we can do at this moment”, taking care to differentiate urgent problems from medium and long-term problems. Since the meeting was set up so urgently and not enough notice of the meeting was given to the general public, we decided to release the discussions of the meeting in this manner under the title of “Emergency report”. It is our understanding that it was a very meaningful meeting which also contained proposals on the future course of action of the Science Council of Japan. We would appreciate it if this report could be used as a reference by the general public, Science Council of Japan members and affiliated members who were unable to participate in the meeting for their future discussions and actions.

March 21, 2011

Ichiro Kanazawa, President of the Science Council of Japan

#### **Introduction**

Before the meeting, we offered a silent prayer for the many victims who have lost their lives as a result of the Great East Japan Earthquake disaster in the Tohoku district off the Pacific Ocean (hereinafter referred to as “Great East Japan Earthquake”), gave our heartfelt condolences to their surviving families, and also offered our deep sympathy to those affected by the disasters. Moreover, we expressed our deepest respect and appreciation for those who are working hard night and day toward the control, recovery, and restoration of the situation heedless of the imminent dangers involved with their work. Being confronted with this serious situation, and also considering that the Science Council of Japan has a function to propose policies to the government as well as to the public from the standpoint of the scientists and engineers, we felt the responsibility that we bear to society especially keenly at this time. Therefore, we gathered excellent scientific minds and expressed our determination to contribute to the

maintenance and improvement of our society's safety and quality of life. This general declaration of determination was one part of the "Statement of the Executive Committee of the Science Council of Japan" we made, and we explained to the attendees that we decided to hold this "Emergency meeting" in order to carry out this determination and exchange opinions on the types of specific contributions that can be made by us as scientists and engineers. We have summarized below concrete opinions that were given at the meeting. The number of participants of this emergency meeting was 190 people in total; 88 members and affiliated members of the Science Council of Japan, 60 members of the general public, and 42 media related persons.

### **Topic – For the sharing of common knowledge**

1. Mr. Shunichi Tanaka (formal member of Japan Atomic Energy Commission)  
Provided explanations of the current situation of the nuclear power plant including the worst possible scenario that could happen. Emphasized that the biggest problem is the injection of water, that the radioactive level in the system must be measured before injection, and stated the necessity of an "all Japan" system that utilizes the full capability of all nuclear power related institutions.
2. Mr. Kiyoshi Miyagawa (Professor at the Laboratory of Molecular Radiology, Center for Disease Biology and Integrative Medicine, Graduate School of Medicine, University of Tokyo)  
Provided explanations on the impact of radiation on the human body by using the homepage of the National Institute of Radiological Sciences as a main source.

### **Proposals and determination declaration**

1. Common understanding of the great disaster  
This chain of disasters which involved a massive earthquake, giant tsunami, and radiation leakage of the nuclear power plant was recognized by all attendees to be a national "emergency crisis" that every citizen should accept as their problem, crossing the boundaries of regions, organizations, generations, and academic fields.
2. Necessity of flexible measures  
To develop measures that can deal with disasters, an emergency contingency plan that is different from the system operating at normal times had been instituted. The measures that followed this emergency contingency plan were taken for the current disasters. However, the great disasters that struck us this time far exceeded the

scope envisioned and assumptions made when this plan was set up, and effects of these measures were insufficient in many cases. Therefore, it is necessary to leave behind any preconceptions and come up with more flexible emergency measures immediately and implement them. This is required not only for the emergency situations at the moment but for various problems in the future.

### 3. Systems that need to be established immediately

To carry out measures to handle the nuclear power plant accident, evacuation of the residents of the peripheral region, medical services, environmental evaluation, and measures for the people working at the disaster sites, it is indispensable to utilize knowledge and experience gathered from overseas, not limiting ourselves to domestic knowledge and experience, it being necessary to enlist the effort of all concerned people and institutions to establish adequate systems. To do so, it is imperative to establish a framework that makes use of the intelligence and experience found in various organizations such as the Prime Minister and His Cabinet, the Nuclear and Industrial Safety Agency, Tokyo Electric Power Company, manufacturers of nuclear reactors, the Nuclear Safety Commission of Japan, the Japan Atomic Energy Agency, universities, research institutions, and medical and health related institutions, crossing over these organizational boundaries. We are determined to use the powers of Science Council of Japan to contribute to the establishment and operation of such collaborative support systems through our network of scientists and engineers in Japan and overseas.

### 4. Actions that need to be taken immediately

- 1) The following are actions that need to be taken immediately: information exchange and consultation with the government, establishment of a “bridging” system facilitating information distribution, restoration of calm after the disaster, sending resources from all over the country to the stricken area that are helpful to the victims. A more concrete recommended measure is introduction of pairing support to the stricken areas (a method to support a stricken area on the scale of municipality units), a system that has a history of achievement in previous great disasters.
- 2) Regarding the accident at the nuclear power plant, all possible measures seem to have been carried out after receiving the opinions of experts in various fields, but it is necessary to share with the public important information such as the results obtained from the measurement systems of the environmental

radioactivity as the radiation spread to areas outside of the plant. By releasing the information appropriately which includes accurate measurement results, both groundless optimism and excessive fear can be controlled. Especially, it is vital to pay careful attention that harmful rumors or misinformation are not circulated.

- 3) In regard to the current situation of the disaster areas, in addition to the obvious problem with housing, it is clear that necessities for life are lacking such as food, drinking water, kerosene, gasoline, bedding, clothing, and medical supplies. Several factors may have caused the lack of necessities, but it has been said that food, medicine, gasoline, and other necessities could not be delivered because the various restrictions imposed during ordinary times were not lifted. Therefore, we strongly recommend taking special measures to deal with these emergency situations.

#### 5. Enlisting the scientist community

Several activities have already been started by several professional specialist associations. In fact, the Third Group of the Science Council of Japan (technology and science section) has started concrete discussion and action. However, the Science Council of Japan is using the experiences of experts in various fields including humanities and social sciences to shed light on this situation, and will present its decisions as to what is needed now to the public. The Science Council of Japan is determined to act as a hub of various such activities.

#### 6. Proposals to the education/research system of Japan

- 1) The number of educational research organizations and facilities that were massively affected by this disaster is considerable, and we strongly request their relief and long-term restoration support. For now, these institutions will be operating with flexible schedules starting from the first semester this coming April. The Science Council of Japan is determined to take necessary actions from now on, after conducting a wide ranging investigation of problems and needs at the damaged education/research sites. The following items are included in these investigations: consideration for the graduate students, researchers with fixed term appointments, etc. in the stricken areas, flexible measures for the operation of a research fund, and consideration for students' volunteer activities.
- 2) Because of this great disaster, various obstacles face elementary, junior-high,

and high schools starting new semesters this April. In order to take measures suited to the situation, we strongly request schools to be flexible with numerous restrictions that are imposed during ordinary times.

7. Systems necessary for the planning of recovery and restoration

- 1) The most important mission of the scientists and engineers working for the restoration of stricken areas is conducting scientific investigation and analysis of the disaster from multiple viewpoints and then providing advice necessary for the restoration activities based on their findings. Especially, their contribution in the preparation of restoration plans is called for.
- 2) Given the present state of the disaster areas and the nuclear power plant, to remedy the situation and carry out recovery and restoration, the knowledge and experience of many science and technology professionals in a vast range of fields are essential, such as medical treatment, health, nuclear energy, energy, environment, food, water works, civil engineering, building construction, transportation, economics, law, government, and local government. To do so, it is essential for the nation to organize into a whole, crossing the boundaries of ministries and agencies, organizations, and generations to prepare a comprehensive system.
- 3) Long-term tasks include creating a long-term vision for Japanese energy and a ground-up design for the future of the stricken regions and Japan as a whole that will make complete restoration possible, but it is also necessary to search widely for other problems and plan appropriate solutions immediately.

In order to carry out the tasks listed above, the Science Council of Japan is determined to use all of its power, in cooperation with other institutions.

**8. Declaration of resolve by the Science Council of Japan**

For our nation to rise up again from the damage caused by this great disaster, accomplish restoration, build a new Japan, and continually improve the safety and quality of life of a new Japanese society, the Science Council of Japan is determined to contribute in every way possible. As a concrete first step, the Science Council of Japan will establish its “Committee to Deal with the Great East Japan Earthquake”, consisting chiefly of our Council’s members and affiliated members. This Committee will gather information and suggestions from scientists and engineers in Japan and worldwide, organize all this into appropriate form, make effective policy statements, and strive to have these policies carried out.

End

Ichiro Kanazawa, President of the Science Council of Japan (MC at the emergency meeting) takes full responsibility for the wording and content of this article.

Support: Tateo Arimoto, Director General of the JST/Research Institute of Science and Technology for Society

(Notes) Among the individual opinions and suggestions gathered from this meeting as listed above, please allow me to inform you that the following two items that I considered necessary to be delivered to the Cabinet immediately were sent to the government on March 18.

**1) Utilization of the nation's intelligence and abilities**

The situation of the Fukushima Nuclear Power Plant is serious, and for its resolution, it is necessary to establish a system that allows the abilities of each ministry, government institutions, research institutions, private companies, and experts to function in a centralized manner (proposal made by Mr. Shunichi Tanaka).

**2) Introduction of "pairing support system" to the affected areas**

Considering the wide range of the disaster, we propose the introduction of the so called "pairing support system" in which an unaffected municipality is selected to support a specified stricken municipality. This system had great accomplishments during the Sichuan Province, China Earthquake in 2008 (proposal made by the Environmental Study Commission of the Science Council of Japan).

Ichiro Kanazawa, President of the Science Council of Japan