

The 3<sup>rd</sup> emergency recommendation regarding the response to the Great East Japan Earthquake

## For the relief of victims of the Great East Japan Earthquake and the recovery of the disaster-stricken areas

April 5, 2011  
Science Council of Japan  
Great East Japan Earthquake Task Force

The sufferings and privations of the victims of the massive earthquake and tidal waves tsunami that struck the Tohoku as well as the Kanto areas, and of the resulting Fukushima Daiichi Nuclear Power Plant accident, are unparalleled in the modern history of Japan. Measures that Japan must take, therefore, need to correspond to the severity of this situation. The our science have to think how we collaboratively about which way the country must head and to confront the situation with all our strength. The following are the urgent proposals for the relief of victims and recovery of disaster-stricken areas.

### **I. Establish a comprehensive system for the relief of victims and recovery of disaster-stricken areas.**

Relief efforts for the compound damage triggered by the natural disaster and nuclear plant accident must be executed urgently and must deal with a wide variety of issues. Moreover, relief efforts for the victims are connected to the recovery of the disaster-stricken areas hereafter. These issues need to be given their proper place among all policy considerations. To do so, a clear path that leads from the relief to recovery must be presented. The allotment of roles between the central and concerning local governments in a coordinated strategy must be planned. Further, in order to protect the rights of the victims, the “act on special relief and recovery measures for the Great East Japan Earthquake” or “basic act on recovery” (provisional titles), must be enacted quickly. In addition, sustainable regional development of the disaster-stricken areas during the recovery must be assured. Reconstruction must aim for creative regional development for the 21<sup>st</sup> century with a view to creating a wide range of new industrial structures.

The government, in collaboration with the local governments concerned, needs to show a clear roadmap to recovery and restoration. It is needed to presenting a rough sketch of how the livelihoods and residential areas of the disaster victims will be reconstructed. Moreover, it is necessary to establish a centralized command agency chartered for the recovery and restoration for a limited period of time. For achievement of this plan, the participation of the victims is necessary to reflect the needs and concerns of the victimized areas.

Participation in recovery and restoration should be based on gender equality. It is also encourage the participation of younger generation. It is also recommending the participation of children, elderly and disabled persons or foreigners, etc.

### **II. Conduct full-scale and immediate relief activities for the victims.**

### **1. Necessity of relevant legal measures**

The damage and impact by the enormous earthquake, Tsunami and Nuclear plant accident are too huge and that exceeds the scope envisioned in the framework of major existing laws. It has necessitated relief and reconstruction of the livelihoods of the disaster victims. Under such circumstances, it is necessary to actively and promptly implement all tasks authorized by the present laws, and for any matters that require new legal measures, early planning and proposal of “zero-based” policies and enactment of legal measures are necessary. If special and provisional legal measures are taken, they should guarantee that verification will be carried out afterwards.

### **2. Necessity of financial and economical support**

For placing highest priority on the protection of the health and livelihood of the victims, the government should urgently prepare a rescue fund to keep people’s minimum life. The government must lend it to everyone without any particular condition. The local governments concerned should deliver the donations gathered from both inside and outside of Japan to the victims as quickly as possible. For the victims such as farmers whom are suffering from the damages caused by a product sales ban, the government should immediately pay the compensation. After that, it should be charged to Tokyo Electric Power Company from the government.

The central government should compile a supplementary budget, remake the national budget, try to reduce the existing fiscal expenditures. The government also pursue a new budget system design for the recovery that source come from issuing of government bonds and increasing taxes or imposing a new tax such as a development and recovery tax. In the case of issuance of government bonds, maintenance of national financial order should be considered, and a tax increase would be treated as a part of the national recovery effort. These treatments should be imposed on different generations fairly. The necessary emergency-stage, short-term, medium-term, and long-term economic measures to be taken should be considered and be planned as quickly as possible.

The central government should urgently make a special exemption rule to alleviate various tax regulations which will encourage corporate donations for this disaster like the temporary abolishing of the range of non-taxable amount for donation or reinstating the special provisions for donations made to companies hiring in disaster-stricken areas, etc. Moreover, a special emergency loan program should be established for the turnaround of all companies in disaster-stricken area including private companies and family firms..

### **3. Support for the livelihoods of evacuees**

A Pairing Support System has been proposed by the Science Council of Japan in which evacuees staying in shelters move as a group into municipalities of other regions (or other prefectures) for a short or a medium period. They will stay there until finishing the construction of temporary housing, or until restoration of the area. Coalitions between local governments have already been expanding and the central government should take necessary legal and financial measures to strengthen and support such coalitions. Local governments should cooperate with their residents to improve the living conditions in shelters and make every effort that human rights are

respected and that adequate care is supplied to children, pregnant woman, elderly, disabled persons and foreigners, etc.

#### **4. Keeping the identity of the victimized community under the evacuation measures**

Care of the victims of the disaster should be based on keeping the community identity. And it is appropriate that they be housed in their own city or a neighboring city if this is possible. Even if the victims are to be housed in separate regions, it is desirable to maintain the community identity and for that reason, it is important to accommodate every member of a victimized settlement or local governmental unit in the same place. Evacuation measures that make it possible for those victims who evacuated individually to other prefectures to return to their native area are also necessary.

#### **5. Welfare, health, and medical support for elderly and disabled people**

The central government should take measures to dispatch personnel who can carry out the early recovery of the organization and management system of the social welfare-related institutions in the disaster-stricken areas. To protect the lives and health of the elderly and disabled people who are staying in the shelters, the procedure for their entry into the facilities and must be systematized.

And the concrete functions of organizations of welfare, health, and medical support under each local government must be revived. Welfare, health, and medical facilities in disaster-stricken regions should cooperate in making it easy for victims to receive care there.

Welfare, health, medical, and other specialized professional groups must organize to dispatch professionals for the support of shelters, social welfare facilities, medical facilities, etc. in the disaster-stricken areas.

#### **6. Quick support for the child victims**

The government, should give priority to financial and human support for the protection of psychological and physical health and livelihood of children. It is necessary to pay special consideration to the impact of disaster on infants and pregnant woman and provide them with psychological care.

For the children whose parents or guardians have died or are missing, dispatching a team of care professionals is urgently required. Moreover, measures must be taken not to cause the difficulties in disabled persons, children and foreign nationals children when information and support is being provided.

Regarding the education, day care, medical treatment, and living environment of children, it is necessary to set up a specialized task force within the restoration headquarters of the government and implement measures for children comprehensively with the cooperation of the central government, prefectural boards of education, and municipal governments.

The central government as well as the local government should strengthen their support for schools in the disaster-stricken areas by utilizing the network of the volunteer groups for educational support, consisting of professionals, university students, and citizens. It is necessary to prepare study materials and text book for the

children who have lost them. And government also organize volunteer support enabling libraries to recover their functions.

If the evacuation period will be longer, all possibilities for school transfer in children groups should be considered. At that time, it is necessary to establish a electronic cross-student-registration system to cover wide jurisdiction to make the search for new schools and the transfer procedure easier.

### **7. Establishment of human support system**

Support provided by volunteers must be appropriate to the damage at the sites and to the needs of victims. In order to do so, it is necessary to establish a public department with cross-jurisdictionally that can manage and supervise the entire volunteer activities and control adaptive distribution for the needs of support to the central government or disaster-stricken regions. Moreover, an official volunteer network to recruit volunteers not only the outside the stricken areas but also the participation of the residents in the stricken regions should be established. In addition, universities should take measures to encourage students' volunteer activities, such as credit recognition.

### **8. Support for the psychological and physiological recovery of the victims**

The Great East Japan Earthquake has been causing symptoms of ASD (Acute Stress Disorder) in children and families not only in the stricken regions, but nationwide through the mass media, and it has the potential to lead to PTSD (Post-Traumatic Stress Disorder) in the future. There is special concern that PTSD caused by experiencing the Tsunami will be very serious, exceeding all known cases. Measures and policies need to provide a wide range of psychological care appropriate to the depth of psychological and physiological stress, and to the age of the victim.

Reestablishing the rhythm and routine of everyday life is an immediate need for infants and small children, and normalizing relationships with specific adults (parents) must be given priority. Moreover, special care should be given for the children who have lost their parents or families or beloved pets or belongings.

For school aged-children, it is necessary a professionals team including school nurses,, developmental clinical psychologists and, clinical psychologists. These school psychologists implement mental care.

### **9. Special treatment to information transmission for foreigners and impaired person**

In dealing with this disaster, we must consider how the information can be accurately and quickly transmitted to people who have some language barrier or hearing difficulties such as foreigners, the elderly, and visually impaired and hearing impaired people. Language used by announcers of TV and radio for reporting information related to this earthquake has become more "easy-to-understand Japanese" and translators of sign language have also been provided for some press conferences and reports. However, "easy-to-understand Japanese" is still not used for the information and commentaries that have more detailed content. Further improvement is necessary for these cases. Moreover, it is imperative to create and maintain a system that allows the information delivery to be carried out smoothly in foreign languages in urgent situations.

## **10. Support for university education and research in the stricken regions by cooperation between universities**

For the university students of the disaster-stricken regions (as well as the prospective students to enter universities this April), the central government should provide support by providing an emergency scholarship fund and tuition exemption measures. Cooperation among all universities should be promoted by their management staffs to support the universities in the disaster-stricken regions, and the central government should support their actions.

With regard to the cooperation between universities, under the guidance of the instructors of universities in the stricken regions and based on the wishes of those students, universities outside of these regions will accept any of those students for a limited period of time. Moreover, in consideration of the living conditions of the instructors and research and educational conditions in the stricken regions, measures to have university teachers outside of the disaster-stricken regions conduct classes as substitute teachers during Golden Week and summer vacation will be examined. Restoration of library functions will be carried out in the same manner. Furthermore, research expenses, data, and materials will be provided and researchers from the disaster-stricken regions will be accepted temporarily into other universities.

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## **III. Efforts for the restoration of the disaster-stricken areas**

### **1. Land improvement of the disaster-stricken areas**

In the “rubble” of the stricken areas are contained Buddhist memorial tablets, personal pictures of the victims, and various articles of reminiscence, and also many historical materials and cultural assets that convey the history and memories of the areas. The central government along with the local government must work hand in hand to proceed with the work of removing the rubble with this in mind.

The central government specified guidelines for removing the rubble, getting approval for entering private land, and for deciding whether buildings, vehicles, ships, and other articles of personal property should be removed or left. When any article is determined as rubble that needs to be removed (disaster waste), it should be disposed of by the prefecture or municipality, but the full cost of this should be paid by government subsidy. When disposing of rubble, to determine property rights related to the damaged buildings and so forth, it is necessary to clarify the grounds for various actions by amendment of laws.

When removing rubble during the restoration stage, it is necessary to restore individual sites and property land boundaries as they were before the disaster. Thus, the central government or prefecture should provide orthogonally projected images taken by aerial photography with high resolution and implement an electronic mapping system to be utilized as fundamental materials for the restoration of the community.

For the disposal of rubble, measures to remove dioxin and radioactivity are taken, and also it is necessary to select disposal methods that take into consideration other environmental problems, accommodating to the real conditions of the actual place. Since there is a possibility that asbestos may be contained in the collapsed buildings, it is necessary to raise awareness of this danger.

For the residential land and apartment complexes in city areas, urgent examinations should be carried out on whether or not this disaster calls for legal measures that are different from the Great Hanshin Earthquake. Considerations must be made regarding the recovery of farming land, e.g. enactment of plans, recovery methods, financial measures, and the legal measures for the farm lands that are determined to be impossible to recover.

## **2. Securing temporary housing**

It is an urgent priority that the central government and local governments build and provide temporary housing, to minimize the duration of living in shelters where freedom and privacy are lacking. It is preferable to build this housing in the same municipalities or neighboring areas if possible, to enable discussions on restoration efforts, building of houses, and community development in the future. Since the air contamination caused by the removal of rubble can be hazardous for the health of residents, adequate caution should be paid when building the temporary housing.

To supply goods for the everyday lives of the victims such as clothing, food, medicinal products, magazines, and newspapers and to convey the necessary information upon requests, the local governments should establish a comprehensive community life support center close to the temporary housing.

## **3. Securing employment in disaster areas**

In the disaster areas, the central government as well as local governments should use the businesses involved in restoration (removal of rubble, building temporary housing, surveys, etc.) as opportunities for relief of the unemployed. Moreover, local business owners should be given priority in the restoration activities in the disaster areas by establishing loan systems that can promptly support them in rebuilding their companies. A one-stop-service for support and consultation with regard to employment, aid funds, and income security should be established. Furthermore, relaxation of the conditions for receiving employment insurance or employment adjustment payments and for exemption of social insurance payments for a set period should be implemented.

Local governments should receive the financial support of the central government to take measures for university students whose informal job offers have been cancelled and who cannot get jobs in the disaster areas, such as hiring them as “restoration supporters” at government offices for one year as an emergency employment measure. The central government as well as local governments should treat these students as new graduates in the next year’s hiring, and urge business organizations such as Nippon Keidanren to keep these graduates from encountering any disadvantages.

## **4. Horizontal and vertical support for the victims and stricken municipalities**

Cooperation between the stricken municipalities and their neighboring and also distant local governments for support of victims has been spreading widely, and similar cooperation should also play a role in the restoration of stricken areas. Hosting local governments should provide support for the necessary everyday living needs, employment, and education of the victims until they are able to leave and the central government should provide the necessary financial support and promote the pairing

support system. Prefectures should execute administrative work on behalf of the stricken municipalities, cooperate in the establishment of an emergency restoration support plan, and also dispatch prefectural staffs or municipal staffs outside the disaster areas for the support of the disaster areas.

## **5. Restoration of education in disaster areas**

In the regions where schools have been destroyed, it is necessary to rebuild and reorganize school environments in the shortest possible time, in the mean time taking measures such as support for alternative learning environments to secure various learning opportunities for each student.

In the disaster areas, many schools are being used as shelters, and teachers are conducting relief activities. Measures to lessen the burden of such teachers are necessary. Through the cooperation between local governments, adjustments such as the personnel relocation within the region should be made to recover an adequate complement of school teachers as soon as possible. Moreover, a system assigning specialized staff to support schools at the expense of central and larger local governments should be established. Furthermore, personnel need to be dispatched for administrative assistance of the municipal boards of education of the disaster areas.

Each university should provide educational support to their education department students who volunteer, by recognizing their actions as academic credits, in cooperation with the municipal boards of education in disaster areas.

Local governments should, with the support of the central government, establish at the earliest possible time support systems such as free use of day-care centers and after-school education centers for parents who are working on the restoration or in support operations for the restoration.

## **6. Fundamental principles for the regional restoration**

The fundamental principle for restoring the wide region that was struck with unprecedented damage is the creation of a new regional society that can assure sustainable regional development. Restoration should be considered from a wide range of viewpoints that cross the jurisdictional boundaries of the local governments and aim to develop a regional community that considers the integration and reorganization of the previous local governments while respecting the autonomy of municipalities. In this process, it is important for the residential communities of the victimized residents to be rebuilt more affluently than before. Restoration is a joint project of the residents, which must bring out the power of the local youth and realize gender equal participation.

## **7. A proposal for the regional restoration**

The following concepts are important for this restoration. First of all, regional development should aim to build regions that take advantage of characteristics of regional culture and society before the disaster, are safe for children, elderly and disabled people, and are open to different cultures.

Secondly, regional development should provide the basis for efficient life styles and industrial structures that are not excessively reliant on energy, and provide easy access to the centralized basic functions of the city system (government, schools,

medical services, businesses, and communication) chiefly through public transportation running on clean energy..

Thirdly, a mechanism should be created enabling private business owners, universities, and citizens to work together to develop competitive industries through regional innovation that could not be implemented until now, leading to the recovery of agriculture, forestry, industries, and fisheries, and to establish basic industries and create employment opportunities.

Lastly, a regional society should be created that is highly resistant to disasters, by reexamining approaches to disaster prevention, taking the city planning action necessary for this disaster prevention, thoroughly conducting disaster prevention education and emergency drills with not only children but with all citizens, and promoting the scientific understanding of the dangerous areas and safe areas in times of disaster.

## **8. Proposal for the establishment of a Tohoku regional council for disaster prevention and risk management**

The current disaster has made us recognize the importance of having a cross-jurisdictional autonomous system extending over the whole disaster area and capable of dealing with the size of the damage. This cross-jurisdictional system could have a wider outlook on the restoration of the disaster areas, and so could fundamentally reexamine the jurisdiction, interrelationship, and coordination of each local government and regional government and the central government in disaster and risk management, so that a needed new system that encompasses regional (prefectural) governments could be established.

## **IV. Supporting the evacuees from the accident of the Fukushima Daiichi Nuclear Power Plant and handling of the accident**

### **1. Supporting the evacuees**

Residents who evacuated to avoid the danger of being exposed to the radioactive substances are forced to live in shelters in other regions and are faced with that difficult situation in which they have absolutely no idea when they can return to their homes. The central government as well as the local governments must provide sufficient care for the elderly and disabled people when evacuating and also ensure and provide safe places for the evacuation. Moreover, to provide for the livelihood and employment of evacuees and children's education in the evacuated places, the central government shall cooperate with the local government of the evacuated place as well as the host local government to provide necessary aid. Furthermore, the central government must promptly deliver to evacuees accurate information on the radioactive contamination situation, the state of measures being taken, and the future outlook of the Fukushima Daiichi Nuclear Power Plant.

### **2. Measures dealing with the radioactive contamination and damage compensation**

Regions subject to evacuation due to the accident of the nuclear power plant include farming areas where residents have been making a living by growing crops and animals. Sales restrictions in such areas, planting restrictions due to contamination of soil, and damage caused by harmful rumors or misinformation are enormous. The



central and local governments should provide accurate and sufficient information related to the safety of each crop, conduct the mapping of such information, present the standards for the actions of the farmers, and compensate immediately for the damages incurred by the farmers as the responsibility of the central government (charged to Tokyo Electric Power Company afterwards).

### **3. Ensuring the safety of the workers at the nuclear power plant**

Workers who are dealing with the accident of the Fukushima Daiichi Nuclear Power Plant are working in an extremely severe environment. Nevertheless, the radioactive exposure accident of the worker from a subcontracting company proved that the safety management of the plant to prevent excessive radioactive exposure was not sufficient. The central government should, regarding ensuring of the safety and life of the workers engaged in dangerous and hazardous operations, clearly stipulate the employer's liability to be that of Tokyo Electric Power Company and immediately improve the situation.

### **4. Transmission of information based on scientific judgment and political responsibility and presentation of the standards of action**

Transmission of information related to the emission and spread of the radioactive substances and handling of the accident of Fukushima Daiichi Nuclear Power Plant have generated significant insecurity among people. For information transmission that is scientifically reliable and also politically responsible, a centralized system in charge of transmission should be established under the central government and scientists along with government representatives should give explanations directly to citizens. Moreover, when transmitting information, it is important to clearly indicate the standards of action for people to take during specific situations and implement a system that supports such action. For authorities to take an ambiguous stance from the fear of legal responsibility for the instructions given undermines the safety of the citizens and create problems such as damage caused by harmful rumors or misinformation.

### **5. Necessity of transmitting internationally reliable information**

Regarding the danger caused by the emission and spread of the radioactive substances, other countries such as the United States and the United Kingdom conducted a stricter evaluation than the Japanese government and issued evacuation orders to their citizens residing in Japan. As a result, it has been discussed whether or not sufficient information has been disclosed to the citizens of Japan and whether safety standards as well as measurement procedures of radioactive substances in Japan are appropriate in light of the international standards. The central government, concerned institutions, and the central player in the accident, Tokyo Electric Power Company, should disclose information completely, seek appropriate support from the relevant overseas institutions and foreign researchers with the cooperation of the Japanese scientists, and transmit the information that is internationally reliable.

### **6. General inspection of the nuclear power plant**

In the regions where there are risks of earthquake and tsunami, many nuclear power plants besides the Fukushima Power Plant are present. For all the nuclear

power plants in Japan, general inspection for safety based on domestic and international standards should be conducted, and measures to stop the operation of the nuclear power plants that do not satisfy the standards should be immediately carried out.

#### **7. Establishment of safe disposal system of the radioactive waste**

The current accident generated a massive amount of radioactive waste including debris from the damaged reactor buildings, great quantity of water containing radioactive substances, and contaminated soil. A large amount of high level as well as low level radioactive waste already exists due to the operation of the nuclear power plants throughout Japan. The central government should establish a safe disposal system of these radioactive wastes so that the natural environment and human lives are out of danger.

#### **8. General gathering of scientists to plan accident recovery processes and presentation of the processes**

The central government should create a system to recover from the accident by gathering all domestic scientists in relevant fields, and actively seek international cooperation and support. The processes needed for the suppression of the radioactive emission, completion of cooling of the nuclear reactor, and decommissioning of the nuclear reactor should be elucidated, with immediate and sufficient transmission of new information at all times.

The Science Council of Japan, since its founding in 1949, have been making proposals and statements related to nuclear power. Especially, our statement of the three principles of peaceful use of atomic energy in 1954 (openness, democracy, and independent action) opened up the road for nuclear power. Moreover, we have made more several proposals regarding earthquake prediction and measures to handle such great disasters. Being faced with the present situation, we realize once again the necessity of conducting inspection on ourselves. Were there any problems in our discussions on the safety of nuclear power plants and energy issues? There have been scientific achievements in earthquake prediction and dealing with great disasters; why wasn't that knowledge utilized sufficiently? Why wasn't the establishment of "Safety Science," actively pursued? The Science Council of Japan, through these self reflections, is determined to contribute to the creative restoration of the disaster areas and revitalization of a sustainable Japanese society.