

## 日本学術会議『巨大災害から生命と国土を守る』学術フォーラム参加報告。 (2014/11/29)

場所：日本学術会議講堂（東京）

テーマ：「東日本大震災・阪神淡路大震災等の経験を国際的にどう活かすか」

11月29日（土）に日本学術会議講堂において、『巨大災害から生命と国土を守る』学術フォーラムが開催され、江川新一教授が参加しました。このフォーラムは2011年11月から日本学術会議と学協会連絡会が連続で開催している10回目の総括フォーラムにあたるものです。2012年5月に共同声明が参加30学会の理事会から正式な承認をうけて発表されていますが、2015年3月に開催される第3回国連世界防災会議およびその準備として2015年1月に開催されるIRDR東京会議、また2015年11月の世界工学会にむけて、東日本大震災、阪神淡路大震災などから得られた知見を、世界の防災・減災にどう活かしていくべきかを議論するものです。

午前の部は、国連防災世界会議について概要と経緯の説明があり、日本学術会議としてはステークホルダーの一つAcademiaとして1月のIRDR東京会議を主催すること、また2015年を契機としてFuture Earthの事務局としても活動することが報告されました。Future Earthは現在のままの人間活動がつづけば地球が支えきれなくなる可能性を真摯にとらえ、科学者の分野を超えた連携、社会が必要としている研究の推進、研究の社会への実装を推進するアプローチの変化をもたらそうとするものです。ICSU, ISSC, UNU, UNESCO, UNEP, IGFA, BELMONTなどが連合して基本概念を提唱しています。2014年に恒久的な事務局が日本学術会議に設置されました。

午後の部は、参加30学会が、1部と2部でそれぞれの学会の東日本大震災への取り組みと国際連携に関する取組を3分ずつ発表し、パネルディスカッションとして活発な議論が交わされました。各学協会が考える防災・減災力を一同に会して聴くことができることは大変よい機会です。また、各学会の重職にある先生方が発表され、若手・中堅のロールモデルとして協力しあうことが要求されていました。ともすれば専門分野に特化していきがちなアカデミアですが、分野・領域の壁を越えて相互理解を進めることの重要性が説かれました。日本工学会会長からは、学会の報告を聞くだけではなく、日本学術会議としてワーキンググループを立ち上げ、協力の場を形成することが提案されました。内閣府からは、中央防災会議においてもポータルサイトを立ち上げ、各研究者が何を研究しているのか、政策に活かすことができる研究がすでにないか、ネットワークの強化ができる関係はないかをわかりやすくする方向で動いていることが報告されました。

2015年1月14－16日（水－金）に開催されるIRDR東京会議では、第3回世界防災世界会議の前に、同会議に参加する世界の指導者とトップクラスの研究者を招へいして防災・減災と持続可能な開発の双方を達成する科学技術のあり方を日本学術会議の全分野（理工学、生命科学、人文社会学）にわたって議論し、東京宣言としてまとめる予定とのことです。

フォーラムの最後に30学会すべての理事会で承認された英文の声明文がJoint Statementとして読み上げられました。今後微細な修正が加わる可能性はありますが、1月のIRDR、3月の防災会議、11月の世界工学会などでステークホルダーとしてわが国のアカデミアが世界会議にむけて発信するため配布されるそうです（下段にコピーを掲示、最終版ではないため解像度を上げてあります）。Healthという単語は入っておりませんが、日本集団災害医学会も参加しているので、medicineという単語が入っています。ますます重要になるQuality of Lifeの日ごろから

の向上にむけて、また、医療医学の分野にむけての発信など、災害医学のなすべきことは沢山あります。

災害対応の際には、世界的にクラスターアプローチと呼ばれる手法がとられ、健康、水、食料、建物、お金、教育などのそれぞれの分野に関係者が所属に関わらず集まり、対応を効果的に行うことが国連の OCHA によって調整される仕組みができています。同様の手法を学問分野にも取り入れ、日頃の問題解決に分野を超えて共同する仕組みが国内でもできていれば、国際的なアプローチにも順応しやすいものと思われます。

**Joint Statement of 30 Disaster-Related Academic Societies of Japan**  
**Global sharing of the findings**  
**from the Past Great Earthquake Disasters in Japan**

- Toward the 2015 United Nations World Conference on Disaster Risk Reduction -  
- Toward the World Engineering Conference and Convention 2015 -

**November 29, 2014**

**Academic Society Liaison Association**  
**Corresponding to the Great East Japan Earthquake**

Executive Committee (members of the Committee on Civil Engineering/Architecture of Science Council of Japan)

Architectural Institute of Japan  
Atomic Energy Society of Japan  
Institute of Social Safety Science  
Japan Association for Fire Science and Engineering  
Japan Concrete Institute  
Japan Society for Natural Disaster Science  
Japan Society of Engineering Geology  
Japan Society on Water Environment  
Japanese Institute of Landscape Architecture  
The Japan Landslide Society  
The Japanese Geotechnical Society  
The Japanese Society of Irrigation, Drainage and Rural Engineering  
The Society of Environmental Instrumentation Control and Automation  
The Society of Instrument and Control Engineers  
Japan Society of Material Cycles and Waste Management

Association for Children's Environment  
Geographic Information Systems Association of Japan  
Japan Association for Earthquake Engineering  
Japan Association for Planning and Public Management  
Japan Society for Disaster Information Studies  
Japan Society of Civil Engineers  
Japan Society of Erosion Control Engineering  
Japanese Association for Disaster Medicine  
The City Planning Institute of Japan  
The Japan Society of Mechanical Engineers  
The Japanese Society for Active Fault Studies  
The Seismological Society of Japan  
The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan  
The Japan Association for Regional Economic Studies

東日本大震災の社会対応に関する学協会連絡会（英語名と同順）

幹事会（日本学術会議 土木工学・建築学委員会）

日本建築学会、こども環境学会、日本原子力学会、地理情報システム学会、地域安全学会、日本地震工学会、日本火災学会、日本計画行政学会、日本コンクリート工学会、日本災害情報学会、日本自然災害学会、土木学会、日本応用地質学会、砂防学会、日本水環境学会、日本集団災害医学会、日本造園学会、日本都市計画学会、日本地すべり学会、日本機械学会、地盤工学会、日本造園学会、農業農村工学会、日本地震学会、環境システム計測制御学会、空気調和・衛生工学会、計測自動制御学会、日本地域経済学会、産業物質資源循環学会

## **Joint Statement of 30 Disaster-Related Academic Societies of Japan**

### **Global sharing of the findings from the Past Great Earthquake Disasters in Japan**

**- Toward the 2015 United Nations World Conference on Disaster Risk Reduction -  
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The 2011 off the Pacific coast of Tohoku Earthquake (Great East Japan Earthquake) was huge and exceeded our expectations. Its induced damage was so serious that we are still recovering from it and still face many issues. Response activities undertaken against the accident of the Fukushima Dai-ichi Nuclear Power Station are very difficult and insufficient to alleviate its impact to both inland and marine environments.

For many years, Japanese scientists and engineers have been trying to establish scientific knowledge and to develop technologies for disaster reduction, but they were divided into each specialty. Specialization has caused significant knowledge gaps and communication difficulties among specialties. Issues between specialties have not been tackled. There is a serious reflection that we blindly believed our scientific knowledge and technologies and we didn't have enough sense of the awe and humble feeling to nature.

After the 2011 Great East Japan Earthquake, we, 30 Japanese academic societies related to disaster management, started to deepen mutual understanding and made efforts to integrate different specialties. We also studied lessons for better recovery and preparedness from the 1995 Kobe Earthquake disaster and others.

Experience and knowledge learnt from natural disasters should be widely applied to reduce all disasters worldwide. Prior to the United Nations World Conference on Disaster Risk Reduction (March, 2015 Sendai, Japan) and the World Engineering Conference and Convention 2015 (November, 2015 Kyoto, Japan), representatives from these 30 academic societies relevant to disaster management, have started to discuss ways of exchanging very rare and important experience and knowledge on such disasters.

For global sharing, the representatives of 30 societies declare to promote the following actions:

#### **1. Serious soul-searching on blind belief in our science and technologies**

We, Japanese scientists and engineers, have been trying to establish scientific knowledge and to develop technologies for disaster reduction and we could reduce damage by natural hazards to lower levels than before. But based on the experiences after the 2011 Great East Japan Earthquake, we seriously recognized that there was blind belief in our scientific knowledge and technologies and that they were not enough. We should always question our knowledge and never forget the sense of awe and humble feeling to nature for implementation of a disaster safe society.



## **2. Sharing of our experiences with international community**

We will contribute to disaster reduction around the world by sharing the lessons learnt from the past earthquake disasters, such as the 2011 Great East Japan Earthquake and the 1995 Kobe Earthquake disasters. We will emphasize the importance of pre-event countermeasures including damage mitigation, preparedness, disaster prediction and early warning, and warning for the possibility of unexpected huge hazards with extremely low probability.

## **3. Collaboration of academic societies**

We will collaborate across academies to promote multidisciplinary research for disaster reduction and sustainable development. The researchers in both natural and social science fields, such as physical science, engineering, medicine, sociology, and economics etc. will work together to create practical measures that have been examined from various perspectives.

## **4. Application to local communities**

We will integrate different specialties and establish comprehensive and effective risk reduction countermeasures for local communities around the world as well as in Japan, considering each local environment and condition.

## **5. Enhancing earth observation and strengthening international human network**

We will enhance the global earth observation and monitoring system, and carry out broad and integrated studies across the earth sciences, focusing on evolution and dynamics of the earth. We will pursue the cause of natural disasters and strengthen the international network of researchers and practitioners for disaster reduction.

## **6. Resiliency for huge hazards that exceed conventional expectations**

We will consider the preparedness against huge hazards, which lie beyond conventional expectations. Even if it seems to be technically impossible, we will do our best to find a way to reduce the impact due to the hazard considering environmental issues and needs for uninterrupted business and social activities during and after severe disasters.

## **7. Human resource development**

We will promote the capacity building of scientists and engineers worldwide by sharing knowledge and experiences learnt from the past earthquake disasters around the world. We will develop Japanese experts in comprehensive disaster management who can work nationally and internationally. We will also train local experts who can contribute to local disaster risk control and management.

## **8. Public awareness**

We will improve public awareness, which is one of the most important measures for disaster reduction. Pre-disaster countermeasures are effective in both human security and economic growth. We will present the knowledge based on the experiences from the past earthquake disasters in an easy-to-understand format to the public. We will promote understanding of the self-help effort, mutual assistance and public support, and will appeal their importance for disaster reduction to the public.

## Academic Society Liaison Association Corresponding to the Great East Japan Earthquake

**Executive Committee** (members of the Committee on Civil Engineering/Architecture of Science Council of Japan)

Steering: Akira Wada, Teruhiko Yoda, Kazuo Tamura, Masako Yoneda, Yasushi Asami and Kimiro Meguro

Masanori Hamada, Shunsuke Ikeda, Mitsuru Senda, Masashi Kamon,

Toshimitsu Komatsu, Haruo Hayashi, Toshihiro Iwatate, Yoshiaki Nakano, Junji Kiyono

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Association for Children's Environment	President, Kimiko Kozawa,	Mitsuru Senda,	Yutaka Nakayama	
Atomic Energy Society of Japan	President, Reiko Fujita,	Hiroshi Miyano,	Tadashi Inoue,	Takanori Tanaka, Naoto Sekimura
Geographic Information Systems Association of Japan	President, Keiji Yano,	Yasushi Asami,	Wanglin Yan,	Michinori Hatayama
Institute of Social Safety Science	President, Shigeo Tatsuki,	Michio Miyano,	Eiichi Itoigawa,	Takaaki Kato
Japan Association for Earthquake Engineering	President, Susumu Yasuda,	Yukio Shiba,	Hajime Shinkai	
Japan Association for Fire Science and Engineering	President, Takeyoshi Tanaka,	Tokiyoshi Yamada		
Japan Association for Planning and Public Management	President, Sukehiro Hosono,	Takashi Onishi,	Toshinori Nemoto,	Kayoko Yamamoto
Japan Concrete Institute	President, Hirozo Mihashi,	Toru Kawai		
Japan Society for Disaster Information Studies	President, Akihiko Nunomura,	Isao Nakamura		
Japan Society for Natural Disaster Science	President, Kazuo Takahashi,	Kimiro Meguro,	Kaoru Takara,	Fumihiko Imamura
Japan Society of Civil Engineers	President, Masahiko Isobe,	Riki Honda		
Japan Society of Engineering Geology	President, Shuichi Hasegawa,	Masahiro Chigira,	Yasunori Otsuka,	Hisatoshi Ito, Fumiaki Nomura
Japan Society of Erosion Control Engineering	President, Yoshiharu Ishikawa,	Masao Okamoto,	Masakazu Suzuki,	Hiroshi Kawabe
Japan Society on Water Environment	President, Akiyoshi Sakota,	Hiroaki Furumai,	Yoshirou Ono,	Mitsaaki Ito
Japanese Association for Disaster Medicine	President, Yasuhiro Yamamoto,	Yuichi Koido		
Japanese Institute of Landscape Architecture	President, Akio Shimomura,	Ryohei Ono		
The City Planning Institute of Japan	President, Norihiro Nakai,	Naofumi Takeuchi		
The Japan Landslide Society	President, Satoshi Tsuchiya,	Daisuke Higaki,	Hirofuka Ochiai,	Satoshi Goto, Hiroomi Nakazato
The Japan Society of Mechanical Engineers	President, Shiro Kubo,	Masaki Shiratori		
The Japanese Geotechnical Society	President, Ikuo Towhata,	Makoto Suzuki,	Mamoru Mimura,	Motoki Kazama, Jun Ohbayashi
The Japanese Society for Active Fault Studies	President, Atsumasa Okada,	Hiroshi Une		
The Japanese Society of Irrigation, Drainage and Rural Engineering	President, Tsugihiko Watanabe,	Takeshi Kikutsuji,	Akiko Kuroda	
The Seismological Society of Japan	President, Teruyuki Kato,	Kazutoshi Imanishi,	Keiichi Tadokoro,	Aitaro Kato
The Society of Environmental Instrumentation Control and Automation	President, Yoshihisa Shimizu,	Kunio Waseda,	Takuji Nakazato,	Masaki Takaoka
The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan	President, Takashi Inoue,	Masaya Okumura,	Hiroaki Tomita,	Yasuo Murata, Toshiharu Ikaga
The Society of Instrument and Control Engineers	President, Ryuichi Nakata,	Satoshi Honda,	Toshiharu Sugie,	Masami Namiki
The Japan Association for Regional Economic Studies	President, Tomohiro Okada,	Makoto Suzuki,	Yoshifumi Ikejima	
Japan Society of Material Cycles and Waste Management	President, Toshihiko Matsuto,	Toshiaki Yoshioka,	Yuichi Moriguchi	
Cooperation:		Muneyoshi Numada,	Hiroki Kobayashi	

### 'Academic Society Liaison Association Corresponding to the Great East Japan Earthquake'

The members of Science Council of Japan become founders and 30 academic societies relevant to disaster management gathered since the 2011 Great East Japan Earthquake occurred. This Association and Science Council of Japan held 10 serial symposiums of 'How to protect people's lives and national land from huge hazards'. This Association aims to collaborate across academies and deepen mutual understanding, and discuss the direction of future beyond different expertise. This activity is supported by the Interdisciplinary sub-committee set up under the Committee on Civil Engineering / Architecture of Science Council of Japan.

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