

IISL/ECSL Space Law Symposium 2006: "Legal Aspects of Disaster Management and the Contribution of the Law of Outer Space"

Report by Atsuyo Ito

The annual IISL/ECSL space law symposium was held on the occasion of the 45th Session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space on Monday, 3 April 2006 in Vienna, Austria. **Ambassador Peter Jankowitsch**, Chairman of the Advisory Board of the Austrian Aeronautics and Space Agency and Past Chair of COPUOS, chaired the Symposium. **Sergei Negoda** of the UN Office of Outer Space Affairs served as rapporteur, and IISL Secretary **Tanja Masson-Zwaan** had coordinated the programme.

The 2006 IISL/ECSL symposium concerned Legal Aspects of Disaster Management, a very topical and significant issue, in view of the many disasters happening around the globe each year and the increasing contribution by use of space technology in response to disasters.

The symposium commenced by words of welcome given by Ambassador Peter Jankowitsch followed by four speakers speaking about different topics relating to the legal aspects of disaster management.

Prof. Joanne Gabrynowicz of the National Remote Sensing and Space Law Center of the University of Mississippi, USA spoke about "*Disasters Charter: introduction, initial issues and experiences*". She gave a comprehensive overview of the International Charter on Space and Major Disasters and on the extensive international cooperation to provide satellite data to countries affected by disasters. She first explained the background of the Charter, reviewed its mechanisms and gave definitions of some of the important terms under the Disaster Charter. She then addressed some of the preliminary issues such as cost, type of data provided, and scope of activation. As regards cost, she pointed out that they are considerable, and are higher for some participants than for others. Budget impacts at agency or departmental level, not at national level. It is important to balance agencies' resources and recipients' needs.

She noted that challenges faced by the Charter are on-going and future operational financing, capacity building and evolving relationships and agreements among and between space agencies and other actors. The Disaster Charter is non-binding, however, Prof. Gabrynowicz noted that it might be potentially binding over time if it is confirmed by *opinio juris* and state practice. She observed that new trends would see new forms of international relations, and new institutions could emerge as alternatives to classical legal agreements. As informality becomes more effective, such informal practice will become more and more recognized as authoritative party behaviour. The Disaster Charter serves as a network for the informal exchange of information between different entities dedicated to disaster management. Prof. Gabrynowicz concluded her presentation with the following practical observations:

- Definitional differences exist between the Charter and the UN Remote Sensing Principles but common features do as well and they reinforce one another
- Reality is that decisions of individual lower level government employees and decision-makers impact departmental or agency, not large, national budgets
- The Charter is working.

Prof. Ray Harris of the Department of Geography, University College London, UK, gave an insightful presentation on "*Challenges of Access to Earth Observation for Disaster Management*". He started by showing some satellite images capturing disasters and contended that technology is not the problem but the issue is how we use the information. He mentioned the UN principles on Remote Sensing briefly and then introduced the Data Policy Assessment for GMES (DPAG), an EU project that is a part of Global Monitoring for Environment and Security (GMES), and highlighted the five major concerns with respect to access to data:

- Control over data and information in terms of legal obligation and licenses
- Accessibility of data such as map information and standards and metadata
- European spatial data infrastructure as in INSPIRE progress
- Costs and funding such as pricing of data and whether data is regarded as private or public good
- Archiving issues such as securing long term stewardship beyond a research project life time, who takes responsibility of archiving, lack of legal basis of archiving in Europe

Prof. Harris then showed how map scale of the data in different countries varies to a great extent. Then, he gave recommendations in three main components, namely,

1. control of data and information,
 2. quality approval and
 3. data dissemination improvements.
- Encryption/ decryption could be used as a technical means of achieving control of data and information
 - Decryption keys could be used in terms of humanitarian crisis,
 - GMES partnership should use appropriate mechanisms to protect the quality of data and products for instance as a brand rather than as a burden
 - Licenses and intellectual property rights are increasingly important.

Lastly, he mentioned some ethical dimensions: questions included who controls the EO data and access to the data, whether society is served by more or less transparency of information as well as privacy laws of individuals. He concluded his presentation by stating that EO data are collected extensively and the key issue is that of access. Access is not just technical but revolves around policies of access.

Prof. Sergio Marchisio, Director of the Institute for International Legal Studies of the National Research Council, Italy, spoke about "*Legal Aspects of Disaster Management; European efforts including the GMES programme*". He gave an overview of the GMES, a joint ESA/EU initiative by talking about the background and legal framework of GMES, with a data policy issue followed by remarks on disaster management from the viewpoint of space law. He noted that Europe has successfully developed and launched advanced observation systems

however; the organisations that promote public welfare have been forced to rely on fragmented and poorly presented information. To improve the European capacity in this field, the proposal for GMES emerged in 1998.

A challenge for GMES is to gather relevant data and provide services, which will enable decision-makers to better anticipate or integrate crisis situations relating to the management of the environment, such as natural and human-made disasters.

GMES services can add value by combining different sources, packaging them in a useful way in a fully integrated manner. It is to support implementation of European policy and it is particularly useful for disaster management.

He noted that the diversity of data that the GMES services require and produce will benefit from the development of a data policy. This may vary according to the domains of services provided, but will need to find a balance between "non-discriminatory access", economic viability and the necessary incentives for private service providers to invest in the development of such capacity. An open access to the environmental information for the benefit of citizens should be freely available through GMES.

Then Prof. Marchisio gave some general remarks concerning disaster management from the space law perspective. He mentioned the contribution from the Disaster Charter as a first international instrument to respond to disasters and implementation of Principle XI of the 1986 UN Principles on Remote Sensing, as well as Principle 18 of the UN Declaration on environment and development adopted at Rio de Janeiro in 1992.

Prof. Marchisio concluded that the Indian ocean tsunami has promoted reflection on remote sensing data pricing policy, shifting toward no charge in case of major disasters and that seems to be the most important element to be taken into account, from the legal point of view, in assessing more recent initiatives.

Finally, **Ms. Masami Onoda**, of Kyoto University, Japan, spoke about "*Legal and Policy Aspects of Disaster Management Support from Space in Asia*". She presented the latest Japanese contribution to the Disaster Charter, showing an image from the recently launched ALOS of JAXA following a landslide in Leyte

Island, Philippines. Then, she showed activities for disaster management apart from the Disaster Charter by introducing the disaster management system in the Asia-Pacific Region, "Sentinel Asia". Then, she moved on to speak about the legal aspects of disaster management by pointing out the lack of a comprehensive treaty or legal framework on natural disasters. She expressed the view that international human rights law, humanitarian law and refugee law serve as a basis of the Disaster Charter or the UN Remote Sensing Principles.

Then, she highlighted significant data policy issues, such as to what extent should humanitarian assistance be provided through provision of EO data particularly with respect to balance with cost and technical capability, the balance between open access to data and data protection as well as responsibility arising from data flaws.

She lastly raised the following questions:

- What is the status of international law in relation to natural disasters?
- Are there any general principles or trends?
- What is the relation between disaster monitoring and supervisory techniques at the level of international law?

She concluded her presentation by observing that a first step should be to identify the international obligations with respect to disaster management and to clarify the procedures, in coordination with humanitarian agencies, at the same time addressing the policy issues in order to facilitate the exchange of views between humanitarian agencies and policy makers in order to establish an adequate framework.

Following the presentation of the four speakers, many delegations expressed their views and took part in the discussion.

One delegate mentioned the UN Watercourse Convention, and its relevant provision on disasters.

The issue as to how to distinguish remote sensing data for normal purposes or for disaster management purposes was also mentioned.

Another delegate mentioned the impact of environmental issues, such as climate change and biodiversity loss, on inducing disasters in the mid-long term. Universal mechanisms to protect the planet are needed and space activities can play an important role. As many nations

have minimal capacity to respond to disasters, efforts have to be made to include all countries in disaster management.

Some delegates expressed the view that the possible contribution of telecommunications to disaster management should not be forgotten, particularly the Tampere Convention on the Provision of Telecom resources for Disaster Management and Relief Operations and the ITU text setting a concrete example as to how to cope with disasters through international cooperation.

Prof. Vladimír Kopal, Vice-President of IISL, then gave some concluding remarks. He thanked the speakers and gave a summary of the ideas and opinions expressed by the four presenters. He noted that the questions raised by the delegates merit further consideration. **Ambassador Jankowitsch** then closed the symposium and invited all delegates to a reception hosted by IISL and ECSL.