

**Conference on Space Law and Space Applications for Disaster Management
in the Asia Pacific Region
20-22 November 2007, Chiang Mai, Thailand**

The Conference was organized by Chiangmai University and Rangsit University in Thailand, with the International Institute of Space Law, IISL. It was supported by the National Center for Remote Sensing, Air & Space Law, Mississippi, USA, the Japan Aerospace Exploration Agency (JAXA), Japan, and the McGill Institute of Air and Space Law in Montreal, Canada.

The 2-day conference provided a thorough overview of the subject matter, in factual terms and from technological, legal, political, and historical points of view.

H.E. Ambassador Professor Sompong Sucharitkul of Rangsit University presented opening remarks on behalf of the President of Rangsit University. Ms. Tanja Masson-Zwaan gave a welcoming address on behalf of the supporting organisations. Amb. Sucharitkul also presented a keynote speech, in which he noted that there have recently been several developments in international law in the field of disaster management, and that this process is still ongoing.

The following is a summary of the discussions held during the six sessions of the Conference, on the basis of the reports submitted by the rapporteurs.

SESSION 1 - THE FACTS: NATURAL DISASTERS IN ASIA AND THE PACIFIC REGION

Chairmen: Professor P. Larsen, Georgetown University, USA, and Professor Chira Prangio, Department of Geography, Chiangmai University.

Rapporteur: Dr. Yun Zhao, City University, Hongkong.

Mr. Oliver Fall, Executive Coordinator of the Asian Disaster Preparedness Center (ADPC) in Thailand talked about "Vulnerability in Asia". The ADPC was introduced to the audience. Mr. Fall further informed the audience of the situation of natural disasters in Asia and Pacific Region, which was followed by a discussion on the definition of the term "vulnerability". He made it clear that Asia is particularly vulnerable, and that natural disasters are on the rise with 50% increase in last 10 years. He also stressed the importance of participative engagement. The ADPC has been able to provide leadership in establishing a regional multi-hazard warning system, aiming to achieve safer communities and sustainable development through disaster reduction.

The second speaker, **Dr. Panitan Lukkunaprasit** from the Center of Excellence in Earthquake Engineering and Vibration, Faculty of Engineering, Chulalongkorn University in Thailand, presented a paper titled "State of Earthquake Hazard Mitigation in Thailand". Disasters are unpredictable due to lack of knowledge and early warning systems, and shortage of personnel in disaster mitigation. It is thus important to cultivate safety concepts among the general public. Thailand is very active in dealing with natural disasters. A National Warning Center was established and Disaster Mitigation Plans were made in the past few years. In the last part of his presentation, Dr. Lukkunapraisit brought up some legal issues concerning the obligation to alert and the importance of international cooperation in disaster mitigation.

Prof. Eric Lee, from the College of Law, Dongguk University in Korea talked about "the Cyber-Cartographical Analysis of Disaster Management: A Technical Implication over International Law". He put forward two important points: the importance of ICT based Disaster Management Systems, and the importance of promoting transnational cooperation.

He concluded by proposing the construction of a cybercartography database for disaster management in Asia-Pacific region; building a community for cybercartography as an intergovernmental institution; recognizing cybercartography data as Common Intellectual Properties among nations in the Region; and carrying out cybercartographical research for natural disaster prevention from a viewpoint of international law.

“National Plan for Disaster Prevention and Mitigation” was the topic presented by **Prof. Seree Supharatib** from the Faculty of Engineering, Rangsit University in Thailand. Natural disasters happen frequently due to rapid increase of population and climate change. Thai law provides a basic framework for carrying out disaster prevention and mitigation. Disaster Prevention & Mitigation Law was enforced on November 6, 2007. Prof. Supharatib suggested several important points, including integration among agencies with sustainability; local responsibility; capacity building of local governments.

Prof. Suchart Tantanadaecha from Chulalongkorn University in Thailand spoke about the important role of ICT in disaster management in his paper “The Application of Information Technology to Disaster Management”. Awareness and education are vital for prevention, survival warning and helping, so that populations are well informed. There is a need to cultivate a safety culture. Prof. Tantanadaecha strongly urged to improve equality of life to networking life saving.

The last speaker was **Prof. Sampan Singharajwarapan** from the Department of Geology, Chiangmai University in Thailand. The presentation titled “Land Slides and Disaster Management in Thailand” stressed the importance of hazard assessment and disaster management. This was exemplified by the discussion in avoiding building in vulnerable areas. The use of GIS will be helpful in fighting against landslide disasters.

The heated **discussion** touched on the importance of international/regional cooperation in natural disaster mitigation; the importance of international/regional organisations to be involved in disaster mitigation (such as providing technical assistance, training and joint investigation). The problem as to whether national governments shall have any international responsibility in disaster management was most heatedly discussed. Is there an obligation to warn, and if so, what are the consequences if it is not observed? So far there is no international law providing such responsibility, but it would be useful to look into the issue.

This session was very well received by the audience. Through the discussion, the audience had the opportunity to get an overview of the current situation of natural disasters and disaster management. This session provided a solid basis for further discussion in following sessions, which would touch on the legal aspects of disaster management

SESSION 2 - THE LEGAL FRAMEWORK

Chairmen: Professor S. Aoki, Keio University, Tokyo, Japan, and Dr. Thanan Anumanrajathon, Vice-President, Chiangmai University.

Rapporteur: Mr. Fabio Tronchetti, University of Leiden, The Netherlands

The presentations provided an overview of how international law in general, and space law in particular, have dealt with the issue of disaster management.

Prof. Peter Malanczuk, International Arbitrator & Consultant, Former Dean, School of Law, City University of Hong Kong, examined the general international framework for disaster management. He made an analysis of a number of legal instruments and initiatives at international and regional level (there are over 100 legal instruments). There are quite few bilateral treaties, but they mostly involve European states. Putting the number of victims from disasters in perspective, he indicated that their number is much smaller than the number of victims of armed conflict or refugees for instance.

Prof. Malanczuk concluded that the status of international law regarding disaster management has to be considered highly unsatisfactory. No comprehensive legal framework providing legal standards, procedures, etc. to disaster response and activities exists.

Mr. Fabio Tronchetti, University of Leiden, analyzed the relation between the space treaties and disaster management. He showed that, although the space treaties do not contain any provisions on disaster management, some of their principles may be used to support the use of space technologies for disaster management. Particularly, he referred to the obligation to cooperate when carrying out outer space activities, which has stimulated and generated cooperation in the use of space technologies for disaster management at international and regional level. Mr. Tronchetti also raised the issue of the possibility to set up a liability regime in case of failure to warn.

Mr. Ricky Lee, School of Law, Flinders University, Adelaide, Australia, dealt with the relation between the remote sensing principles and disaster management. He provided an article by article analysis of UN Resolution 41/65 (1986), containing Principles Relating to Remote Sensing of the Earth from Outer Space, by showing some of its limits, such as the fact that it only refers to natural disaster and not, for instance, to man-made disaster. Mr. Lee expressed his refusal to interpret the Resolution principles in terms of customary law and stressed the need for laying down new binding legal instruments regarding disaster management. However he conceded that the Resolution is a good basis to create such binding principles.

Next, **Prof. Sethaporn Cusripituck** of the National Telecommunications Commission, Thailand, dealt with the issue of Telecommunications Law and disaster management. He focused his presentation on how disaster management is organized in Thailand. He stressed the fact that the main task and responsibilities in case of disaster are always placed on governmental agencies. In this respect, he pointed out the role of the National Telecommunication Commission (NTC). He also analyzed the role of some international organizations, such as the ITU, for reducing the effects of disasters.

The Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations was addressed by **Dr. Zhao Yun**, City University of Hongkong, China. He presented an article by article analysis of the Convention and explained its importance in facilitating the use of emergency telecoms within the framework of international humanitarian assistance. Since the Tampere convention covers images, it is relevant for disaster management, and it has the advantage that it is a treaty with binding legal force (however, it does not apply to remote sensing data). After dealing with some of the innovative aspects of the Convention, such as the attribution of privileges to personnel of non-governmental organizations (NGO's), he focused on Article XI which aims at reducing regulatory barriers, such as revising existing national regulations or granting temporary waivers of the regulations for specific telecom resources. Dr. Zhao concluded his presentation by underlining the innovative character of the Convention which makes it a valuable example for future treaties on disaster management response.

During the **discussion** which followed, the issue of a possible liability regime in case of failure to warn was raised. Dr Supancana asked Mr. Tronchetti about the relation between the Liability Convention and disaster management. Mr. Tronchetti answered that the Convention is not applicable in similar case and that a new instrument is required. A similar view was also expressed by Prof. Malanczuk. Mr. Lee suggested the possibility to use Article VI of the Outer Space Treaty to make state responsible for failure to warn.

Dr. Supancana also asked Mr. Lee how it would be possible to reinforce the rights of the sensed states. Mr. Lee answered that a new instrument is required considering the non-binding nature of the UN Resolution on Remote Sensing. Following the same way of reasoning, Prof. Malanczuk confirmed the non-binding nature of the Resolution.

SESSION 3 - THE ROLE OF SOFT LAW

Chairmen: Professor S.M. Rhee, Seoul National University, South Korea and Professor Sethaporn Cusripituck, National Telecommunications Commission, Thailand

Rapporteur: Mr. Ricky Lee, School of Law, Flinders University, Adelaide, Australia

The paper by **Prof. Balakista Reddy** (NALSAR, India) on the International Charter on Space and Major Disasters was summarised by Ms. Tanja Masson-Zwaan in his absence. He noted the continuing debate in international law between “hard” law and “soft” law and the particular legal needs of dealing with major disasters. There is no comprehensive agreement on international disaster response as yet and thus the Charter fills the gap in the law. He analysed the history and structure of the Charter and also discussed the role of remote sensing in disaster prevention, mitigation and relief. He indicated that some important obstacles to the implementation of the Charter include inconsistent state practice, money, politics and security. Prof. Reddy then discussed the role of regionalism, as regional approaches to international cooperation may in turn lead to more global cooperation. Particularly in Asia, there is a need for common space policy in disaster management. There is a large number of states that possess their own remote sensing capabilities, however they lack the proficiency to deal with preparedness for disasters. The international DMC model based in Surrey may be a good starting point to jointly develop satellites and share knowledge through exchange of data. There needs to be a common policy of disaster management through regional arrangements to ensure that the Disaster Charter achieve its objectives in the Asian Region.

Ms. Tanja Masson-Zwaan (President-elect, IISL) and **Mr. Fabio Tronchetti** (Italy/University of Leiden) prepared a paper on the Contribution of GEOSS to Disaster Management, which was presented by Mr. Tronchetti. He pointed out that GEOSS, a system of systems, using existing and future remote sensing systems, has a particular impact for natural disaster prevention and management, which is in fact the first of nine initial areas in which GEOSS is expected to benefit through its first implementation plan. He outlined the evolution of GEOSS and GEO, the Group on Earth Observation, which is an intergovernmental organisation dedicated to developing and instituting the GEOSS on a voluntary basis. It is essential that GEOSS ensures full, free and open access to all data, data products and valuable forecasts needed. The various regional contributions to GEOSS were discussed, such as from Europe, the USA and the Asia Pacific Region. In late November 2007, the first GEO Ministerial Summit would take place in Cape Town to discuss the use of observation to improve lives in developing States. In conclusion, he urged that GEOSS is an opportunity to improve life and Earth and needs broad support among the global community.

Prof. Setsuko Aoki of Keio University, Tokyo, Japan, talked about Emerging International Space Law on Disaster Management with Special Emphasis on Data Policy. She noted the increasing importance of soft law rules in international law and stressed that, since 1979, the UN have only produced principles and guidelines. Soft law has certain advantages over treaties, however, it is not binding and enforceable. International law on disaster management is limited in scope, there are less legal rules for natural disasters than for human-made disasters. The Indian Ocean tsunami disaster has stimulated international cooperation in natural disasters, and space law has done much to provide for space-based mechanisms for responding to natural disasters. Regarding the distribution of remote sensing data, Prof Aoki noted that the rules of distribution of data are operated by States or private companies under domestic law. Most of these are guidelines and thus not legally binding. On an international level, the compromise contained in Principle XII of the Remote Sensing Principles forms the basis for the data policy of organisations such as CEOS (since 1991), IGOS-P, GEOSS and the Disaster Charter (since 2000). There are some definitional issues that need to be solved; for instance the Remote Sensing Principles discuss the “primary data”, “processed data” and “analysed information” while other policies utilise other terminology. Prof. Aoki concluded that COPUOS has not lost its law-making capability but

that the form of law preferred has changed and, as a forerunner of international law for disaster management, the development of space law on capacity building is critical.

Prof. Paul Larsen (Georgetown University, USA) presented a paper on Shutter Controls and the denial of access to remote sensing data for the prevention and mitigation of disasters. He pointed out that there is a legal distinction between remote sensing data and reconnaissance data, even though the data itself may be the same or similar. The focus of his paper was on the provision of high-resolution remote sensing data and the distinction between raw data and processed data. He also emphasised that the distinction between primary data and processed data as contained in the Remote Sensing Principles is based on the operations of the LandSat satellites and assumes that the data is of a fixed resolution and this is no longer the case. This is important to keep in mind when considering access to remote sensing data in the context of the present debate. Prof. Larsen noted that all States presently have some national security restrictions on access to high resolution remote sensing data. In the US it is possible to appeal to the President to exercise some discretion in waiving compliance with regulations but in principle high resolution data would not be readily available, while unenhanced raw data may be available on a non-discriminatory basis and on reasonable cost terms. Prof. Larsen discussed the practices of several other states that exercise shutter control to some extent, e.g. Israel, India and Malaysia. Thailand and Japan are noted to have rather liberal approaches to access for remote sensing data. Canada is similar to the United States in that unenhanced data is freely available while high resolution and enhanced data is available only on a case-by-case basis. He concluded that high resolution remote sensing data for disaster mitigation and management may not be available and special dispensation may be required from most States on a case-by-case basis.

During the **Discussion**, Dr. Supancana observed that there is quite an abundance of soft law in disaster management and space law. He pointed out that the regulation of the Internet is also fundamentally based on soft law, including domestic rules and regulations for issues such as privacy. He asked Prof. Aoki about her views on the future of soft law in these fields. Prof. Aoki responded that the increasing trend in international law is to shift focus from the harder sources of international law to the softer sources and that we are now at the crossroads. She feels that soft law will increase in importance in the next twenty years and there is no solid foundation for dealing with state responsibility for breaches of soft law. She feels that most legal issues in disaster management can be addressed by soft law but there is the need for some specific legal issues to be dealt with by legally binding treaties or conventions.

Mr. R. Lee commented that the definition of the term “telecommunications” under the Tampere Convention includes the term “images” and the ramifications of this on the provision and exchange of remote sensing data in situations where the Tampere Convention applies must be addressed in more detail.

Prof. Malanczuk suggested that the distinction between hard law and soft law is increasingly blurred. Soft law elements may become hard law, and custom is in fact hard law. For example, General Assembly resolutions may produce soft law elements that may become hard law in future, though not of itself as the General Assembly cannot make binding decisions. Prof. Aoki noted that there seems to be a strong belief by many States that remote sensing data must be disseminated on a non-discriminatory basis on reasonable cost terms provided that the data is used for a public benefit and this may be sufficient state practice and *opinio juris* for the formulation of custom. Prof. Rhee commented that in the current decentralised society there will be a mixture of hard law and soft law and maybe even harder soft law and softer hard law.

Prof. E. Lee suggested that the fundamental doctrine to consider is humanism. As the central topic of the present discussion is disaster management, it is important to keep in

mind the needs for humanity in resolving legal questions, particularly in compliance of hard law and soft law issues.

Ms. Masson-Zwaan suggested that, in high cost activities such as remote sensing, costs and national security will always be part of the consideration. The discussion about restrictions placed on high resolution remote sensing data has left her pessimistic, but the promotion of humanism in state practice and *opinio juris* may help encourage States to develop harder law in support of exchange of such data.

SESSION 4 – THE ROLE OF THE UNITED NATIONS

Chairman: Ms. Masami Onoda, Space Technology Coordination, JAXA/Kyoto University, Japan.

Rapporteur: Mr. Oliver Fall, Executive Co-ordinator, Asian Disaster Preparedness Center.

H..E. Amb. Professor Sompong Sucharitkul of Rangsit University, Thailand, presented a paper on the Evolving role of the UN in law making in relation with disaster management. Prof Sompong, employing his 57yrs experience in international law from Europe, America, Asia and the UN provided a unique and extensive insight into the current framework that supports international law. The UN has a mandate to codify and pursue the codification of international law. Within the UN there are six principal organs for law making/codification – the International Law Commission, General Assembly, Security Council, Secretary General, Treaties and Codification Secretariat and the Security Council derived UN Compensation Commission. International law, with relevance to space law and the principle of a 'Duty to inform' takes precedent from the Corfu Channel case (United Kingdom vs Albania) in the 1950s wherein the UN Security Council found Albania had contravened a duty of care within its territorial waters. However, the fact that the compensation awarded at the time has yet to be paid 50yrs later is an apt demonstration of the power of international law – it remains largely soft in execution. Questions also remain as to who exactly has the obligation to warn, whether it is an absolute obligation, how to assess compensation, how to enforce compliance, etc. Although international law has seemingly undergone a paradigm shift to being binding, there still remains no effective means of coercing states to ratify and codify these laws. International law remains voluntary and consensual.

Prof. Sompong held that an obligation to warn exists also in case of natural disasters, and this is an obligation *erga omnes*. However the problem is how to relay the information; and possibly the UN Secretary General should be given the information to relay it. In his opinion, it would be against the principle of good faith to not give information if you have it, and he was confident this would actually happen in practice, even despite national security concerns which obviously need to be solved too.

The UN can indeed provide a reliable and popular platform for promulgation of international law, and has certainly been active in the field of disaster management, however Prof Sompong advised patience in this regard.

Mr. Riffi Tamsamani Said of the Royal Center for Remote Sensing in Morocco, talked about the Contribution and role of the UNCOPUOS from the perspective of the African Region. Mr Riffi provided a concise brief on the UN Committee for the Peaceful Use of Space and its impact in the context of African states. The overall mandate of COPUOS is to support sustainable economic and social development and to promote peaceful applications. COPUOS provides a public database on national space legislation and policy. COPUOS Action Team no.7 is dedicated to facilitating disaster management efforts, providing access to earth observation data, the development and implementation of plans and to monitor/assess the progress of these plans.

UNISPACE III in 1999 invited states to ratify existing treaties and to develop further peaceful uses for outer space. This conference led to the 'Charter on Space and Major Disasters' in

2001; since then, there has been a consistent and steady increase in the demands for assistance. Used on every continent, West and Eastern Africa dominate the requests for assistance and enactment of the Charter. 80% of the events in West Africa concern flooding, however the greatest proportion of requests originate from Asia – a factor ascribed by Mr. Riffi to a greater awareness of the Charter and availability of skills in Asia than in Africa. There is a lack of coordination in Africa at international level, no training for disaster management issues, no knowledge about the advantages of space technology (especially remote sensing) for disaster management, and finally also a lack of legal knowledge. Mr. Riffi concluded that international support is required to counter this trend.

Mr R. Lee, School of Law, Flinders University, Adelaide, Australia, presented a paper about UN-SPIDER (UN Platform for Space-based Information for Disaster Management and Emergency Response), one of the youngest space initiatives, having been established in 2006 by the UN General Assembly. He provided a clear view of the potential of UN-SPIDER. Mandated with four key goals, UN-SPIDER was established with the specific aims of assisting the development of disaster management capacities and providing universal free access to relevant data. An ambitious Global project, but with a wide base of support from key global, state and non-state actors, this project has real potential for success based on the existing sustainable contributions. The project in fact brings together the space based technology groups with the disaster management groups. The 11 key activities that UN-SPIDER conducts are focused on the consolidation of relevant space-based national data and information that can be made readily and publicly available through public data portals, in order to provide and develop institutional linkages for harmonized, mutual capacity building initiatives between UN-SPIDER, disaster management agencies and communities. Mr. Lee concluded that UN-SPIDER is a project with real potential that should be closely watched in the coming years.

During the **Discussion**, Dr Supancana asked who would be responsible for the 'duty to warn'; those with the hazard or those with technology, Prof Sompong replied that the burden would lie on those with the technology, as you need the information and that is largely only available to those with the technology. However, within this judgement we must also take into account the liability and capability of the nation to act on this information. He further suggested that the UN should/could act as the mechanism for dissemination of the information.

Mr. Fall noted that the UN's role within development and disaster management is extensive, but it has led to overlapping and de-constructive competition for resources and publicity (not only in the UN, but also amongst non-state actors in particular). Given the UN's evident and expanding role within space law and its applications to disaster management, he raised the question which UN institution should be seen/or is viewed as the most capable and authoritative to lead future efforts. Or, is there perhaps a viable alternative to the UN?

SESSION 5 - REGIONAL COOPERATION

Chairmen: Prof. Eric Lee, Dongguk University, College of Law, Korea, and Mr. Masahiko Sato, JAXA, Legal Affairs, Japan

Rapporteur: Dr. Preesan Rakwatin, Visiting Researcher, JAXA, Japan

Ms. Masami Onoda (Space Technology Coordination, JAXA/Kyoto University, Japan) presented a law and policy perspective on regional disaster monitoring by remote sensing. In her view, it is too early to discuss disaster management support from space in terms of international obligations. There is a gap between legal/ policy instruments and space programmes, and it is our role to bridge that gap. It is necessary to balance and coordinate the many projects at global, international, and regional levels, such as GEOSS, the Disasters Charter, Sentinel Asia etc. In absence of an international obligation, one must look at underlying international obligations, look beyond COPUOS at other areas of international

law. Also, coordination with humanitarian bodies is essential. Disaster management support should establish a working system at regional level. We should first accumulate the successful practices; emerge from the 'demonstration' phase to constructing a truly effective framework for applying satellite data to disaster needs. Finally, regarding data policy, Ms. Onoda stressed the need to find a balance between humanitarian assistance and cost. Also, the issue of data protection must be considered, as well as the questions of responsibility and liability in case of data flaws or misinterpretation of data, which seem to be somewhat neglected.

Professor S.M. Rhee, Seoul National University, South Korea, spoke about the Asia-Pacific Space Agency Forum (APRSAF). The APRSAF aims to enhance the development of space programs in the Asia-Pacific region and promote regional cooperation in the field of space technology and its applications. Contrary to APSCO, which is an IGO, the APRSAF is only a forum. Participants are space agencies, related governments, regional and international organizations, institutions responsible for applying space technology. However, Prof. Rhee observed that there are many problems of rivalries, cold war remnants and the lack of an overarching machinery like ESA. Prof. Rhee felt that the forum should further promote cooperation among governments and international organizations in order to strengthen the network of international collaboration, especially China. He suggested that conciliation with the MTCR regime is necessary, so that cooperation can be facilitated. This raised quite a bit of discussion, as the effect of MTCR on international norms is a global concern. Ultimately, the ideal solution would be an Asian space cooperation, or even an Asian Space Agency.

The Disaster Management Support System "Sentinel Asia" was presented by **Dr. Preesan Rakwatin**, Visiting Researcher, JAXA, Japan. The "Sentinel Asia" project is a kind of new collaboration between space agencies and disaster management agencies aiming at contribution to disaster management support in the Asia-Pacific region. For future disaster management support in the Asia-Pacific region, the JAXA vision is the utilization every kind of satellite system. Sentinel Asia consists of two kinds of activities. One is to provide disaster-related information in the Asia-Pacific region such as satellite imagery, satellite data products through Web site. The other is a capacity building to develop human resources and human network to utilize the information provided by the Web site.

Lastly, a paper by **Mr. Virgiliu Pop** and **Dr. Marius-Ioan Piso** of the Romanian Space Agency, discussed the role of the Romanian Space Agency in the management of natural disasters, as a possible model for small Asian countries. Romania has its own space agency, its own meteorological service and seismology institute, as well as specific institutions entrusted with the mitigation of natural disasters. Disaster mitigation through use of space technology is one of the key activities of Romanian Space Agency (ROSA). The Agency fully avails itself of the opportunities arising from the cooperation with ESA, NATO, the EU Institutions, the UN, Eurisy, GEO, etc. Romania also plays an active role in this respect. International cooperation is crucial, as many natural disasters do not occur in a single country. Small Asian countries could follow Romania's model by creating their own national space agencies, by entrusting these, inter alia, with the management of natural disasters, by creating a regional space agency, and by promoting regional cooperation with organizations such as ASEAN, GEO, and the UN.

SESSION 6 - STATE RESPONSIBILITY AND HUMANITARIAN ASSISTANCE

Chairmen: Professor P. Malanczuk, International Arbitrator & Consultant, Former Dean, School of Law, City University of Hong Kong, and Mr. Watis Sotthibandhu, Associate Dean for Academic, Research & Foreign Affairs, Faculty of Law, Chiangmai University.

Rapporteur: Mr. Virgiliu Pop, Romanian Space Agency, Romania

The paper by **Mr. R.M.R.B Nawinne**, Senior State Counsel, Attorney General's Department, Sri Lanka, on the principles of State Responsibility and Humanitarian Assistance in the

context of Disaster Management was presented by **P. Malanczuk** in the absence of the author. State responsibility is a fundamental principle of international law, arising out of the nature of the international legal system and the doctrine of State sovereignty and equality of States. A number of international instruments lay down several principles and/or obligations relating to natural and/or technological disasters. The paper outlined the “duty to warn or duty of information” as an emerging concept. Although the primary responsibility lies with the state, Mr. Nawinne suggested that the international community bears a secondary responsibility. In the field of space law, the author considered the responsibility for damage caused by satellite based information. Mr. Nawinne concluded that states are obliged under customary international law to prevent, mitigate and assist affected States in the event of natural disasters and technological disasters; in this regard, space technology plays an important role in the early warning and post disaster management.

As an improvised addition to the programme, **Prof. Peter Malanczuk** gave an excellent overview of the ILC's Draft Articles on State Responsibility. These are frequently cited by the ICJ and other fora, such as the Iran-US claims tribunal, being significant *qua substance* and *qua custom*. Not necessary to be included in a treaty as per Roberto Ago's vision, a distinction was made between primary and secondary rules. Professor Malanczuk clarified what a breach is and how it can be attributed, and when is a act done by an individual an act to be attributed to a state. He also elaborated on the concepts of circumstances precluding wrongfulness, force majeure, self defense and distress, and discussed the consequences of responsibility in terms of reparation to the *status quo ante*, in money or by 'satisfaction'. The question whether lost profits are compensable has also been considered by the ILC, and this falls under *progressive* development of international law - the second role of the ILC, after codification. The speaker lastly outlined the role of *jus cogens* and the difficulty of finding a precise agreement as to its extent, also in relation with the concept of *erga omnes* – he explained that *ius cogens* refers to substance, while *erga omnes* refers to their effect.

Dr. I.B.R. Supancana, Center for Regulatory Research, Jakarta, Indonesia, presented his paper on the International Disaster Response Laws, Rules & Principles (IDRL) Programme of the International Federation of Red Cross and Red Crescent Societies (IFRC). The IDRL was initiated by the IFRC in 2001, as a response to the growing concern within the international community as to the adequacy of existing legal and other mechanisms facilitating humanitarian activities in response to natural and technological disasters. The IDRL programme seeks to raise awareness of applicable standards and promote their effective implementation, to identify weaknesses in current regulatory structures at all levels, and to promote dialogue in finding solutions. As a means aimed at this goal, non binding Draft Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance have been sketched. Dr. Supancana stressed the necessity of harmonizing the national and international law to deal with the issue of implementing the IDRL, and called for a strong commitment from the international community led by governments to finalize guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance.

Lastly, **Ms. Tanja Masson Zwaan**, President-elect IISL, presented a paper on the Humanitarian Charter and Minimum Standards in Disaster Response (SPHERE). A voluntary initiative, SPHERE reflects the collective will and shared experience of a broad array of humanitarian actors and is based on international humanitarian, human rights, and refugee law together with a 'Code of Conduct'. SPHERE is an unincorporated project, hosted by the International Federation of Red Cross and Red Crescent Societies in Geneva, and its board consists of NGO representatives, responsible for project oversight. SPHERE and its Handbook are important tools in the field of disaster management. Although it is voluntary, most principles are enshrined in international legal instruments. States are responsible, and moral pressure can make them comply with obligations, or at least convince them to accept help from others, whereas involvement of local population and specific groups such as women is recommended.

CONCLUSION

The conference was considered by all attendants to be very successful, comprehensive and constructive. The topic of disaster management was discussed not only from the point of view of space law, but also public international law, humanitarian law, telecommunications law, and other fields of law. The format of having relatively short presentations and much time for discussion was appreciated by all. Speakers came from many different backgrounds, both professional and geographically, with a large number of Thai speakers, and also there was a good balance between space lawyers from the younger generation and the more experienced ones – all this ensured lively debate and discussion. Many students were allowed to attend the sessions and this was also very positive and will hopefully inspire them to pursue their further studies in this field.

Chiangmai University and Rangsit University are to be congratulated and thanked for their immense efforts in making this conference possible in a short timeframe. Prof. Nipant Chitasombat worked long hours with incredible drive and determination to organise everything perfectly and to have a well-balanced international group of speakers and participants. He also organised interesting visits for the international guests to take in the sights and scenes of beautiful Chiangmai in the Land of a Thousand Smiles.

Chiangmai university will publish the Proceedings of the Conference.

Tanja Masson-Zwaan, President IISL, January 2008