



ANNOUNCEMENT
8TH Annual UN-SPIDER Conference in Beijing

The United Nations International Conference on Space-based Technologies for Disaster Risk Reduction - "Enhancing Disaster Preparedness for Effective Emergency Response"

Organized by the
United Nations Office for Outer Space Affairs
and the
Ministry of Emergency Management of the People's Republic of China

Venue: Beijing, China (Grand Gongda Jianguo Hotel)

Dates: 24 to 26 October 2018

1. Introduction and Background

The Office for Outer Space Affairs is pleased to announce the **"United Nations International Conference on Space-based Technologies for Disaster Risk Reduction – 'Enhancing Disaster Preparedness for Effective Emergency Response'"**, to be held from 24 to 26 October 2018.

The conference is organised by the United Nations Office for Outer Space Affairs (UNOOSA) and the Ministry of Emergency Management of the People's Republic of China, and implemented under the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) through its Beijing Office. It follows seven conferences held since 2011. Previous conferences covered the themes of "Best practices for risk reduction and rapid response mapping" in 2011, "Risk assessment in the context of global climate change" in 2012, "Disaster risk identification, assessment and monitoring" in 2013, "Multi-hazard disaster risk assessment" in 2014, "A consolidating role in the implementation of the Sendai Framework on Disaster Risk Reduction 2015-2030" in 2015, "Understanding disaster risks" in 2016 and "Building Resilience through Integrated Application" in 2017. These conferences offered a forum for disaster management communities and experts to strengthen their capabilities in using space-based information to identify, assess, monitor and respond to disaster risks and integrate space technology into long-term disaster risk management efforts.

The conference is prepared in collaboration with the China National Space Administration, the Asia Pacific Space Cooperation Organisation and the Regional Centre for Space Science and Technology Education for Asia and the Pacific.

2. Conference Objectives

The Third United Nations World Conference for Disaster Risk Reduction (www.wcdrr.org) took place in March 2015 in Sendai, Japan, and the "Sendai Framework for Disaster Risk Reduction 2015-2030" was adopted on March 18, 2015. Priority 4 "Enhancing disaster preparedness for effective response and to 'Build Back Better' in recovery, rehabilitation and reconstruction" of the Sendai Framework states that *"The steady growth of disaster risk, including the increase of people and assets exposure, combined with the lessons learned from past disasters, indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels. Empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery, rehabilitation and reconstruction approaches is key. Disasters have demonstrated that the recovery, rehabilitation and reconstruction phase, which*



needs to be prepared ahead of a disaster, is a critical opportunity to ‘Build Back Better’, including through integrating disaster risk reduction into development measures, making nations and communities resilient to disasters.”

Earth observation and other space technologies play an important role in emergency response by providing rapid response maps, detailed damage assessment, emergency communication, and collecting location based damage information, finding suitable sites for building back better and so on. However, the countries need to prepare well and build capacities for utilizing the full potential of space technologies in support of the Sendai Framework Priority 4. UN-SPIDER is working with the Member States in this direction. For example, UNOOSA co-published guidelines for disaster emergency response in ASEAN countries. The handbook "Sharing Space-based Information: Procedural Guidelines for Disaster Emergency Response in ASEAN Countries" provides procedural guidelines for sharing space-based information during emergency response and aims to support disaster managers become familiar with the systematic approach necessary for using satellite-derived and geospatial information applications. This publication is an outcome of 4 workshops conducted in the ASEAN region¹.

Recognizing the current challenges in the use of Earth observation technologies in disaster management and emergency response, the Office for Outer Space Affairs and the Ministry of Emergency Management of the People’s Republic of China are co-organising the International Conference on Space-based Technologies for Disaster Risk Reduction – “Enhancing Disaster Preparedness for Effective Emergency Response”.

The conference aims to provide a platform to communicate various means to be adopted by Member States and supporting international/regional organisations in enhancing disaster preparedness for effective response and to ‘Build Back Better’ in recovery, rehabilitation and reconstruction, especially based on the use of space-based technologies. This may include tools, technologies as well as peripheral issues such as data sharing, spatial data infrastructure, institutional coordination, needed for achieving the targets of the Sendai Framework. Recommended practices and experiences in this context will be shared by the panellists and discussed by all participants. Thus, the conference will contribute to efforts of Member States and UN-SPIDER to implement the Sendai Framework, the 2030 Agenda for Sustainable Development and the Paris Agreement stemming from the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change Conference of the Parties (COP21). The conference also supports the implementation of UNISPACE+50 that marked the 50th anniversary of the First United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE) held in 1968 in Vienna.

The overall aim is to strengthen the role of space technologies to assist Member States in implementing the Sendai Framework which can be achieved by deeper engagement with the Member States through technical advisory support and other services aiming at institutional strengthening.

3. Expected outcomes

The conference will build upon the outcomes of the 5th, 6th and 7th UN-SPIDER Conferences (2015, 2016 and 2017, respectively) in Beijing that are documented in the form of three parliamentary documents submitted to the Scientific and Technical Subcommittee of the Committee for Peaceful Uses of Outer Space (COPUOS) in 2016 and 2018. It elaborates the role of Earth Observation in the implementation of the Sendai Framework on Disaster Risk Reduction 2015-2030.

http://www.unoosa.org/oosa/oosadoc/data/documents/2016/aac.105/aac.1051102_0.html

http://www.unoosa.org/oosa/oosadoc/data/documents/2016/aac.105/aac.1051130_0.html

¹ <http://un-spider.org/news-and-events/news/unoosa-co-publishes-guidelines-disaster-emergency-response-asean-countries>



http://www.unoosa.org/oosa/oosadoc/data/documents/2018/aac.105/aac.1051156_0.html

The conference is expected to provide thoughts, ideas and help formulate programmes to achieve the following:

- a. Strengthening institutional frameworks of disaster management agencies for utilizing space-based information during emergencies;
- b. Provide a basis for developing standard operating procedures (SOP) for disaster emergency response to generate and communicate information in systematic manner and avoid duplication of mapping efforts;
- c. Combined and complementary use of space-based technologies and in-situ information in preparing for emergency response;
- d. Strengthening the access to and use of existing emergency response mechanisms providing earth observation support during emergencies; and
- e. Contribution to the global frameworks namely, the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Paris Agreement stemming from COP21.

The recommendations of the conference will be compiled in the form of the report which will be made available to the Scientific and Technical Subcommittee of COPUOS in 2019.

4. Preliminary Program of the Conference

Day 1

Inauguration

Key note Session

This session will offer the views of the invited speakers.

Session 1: Institutional strengthening and preparedness for improving emergency response using space technologies

At national and local levels, Priority 4 of the Sendai Framework advocates “to prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions”. At global and regional levels, it recommends “to promote the further development and dissemination of instruments, such as standards, codes, operational guides and other guidance instruments, to support coordinated action in disaster preparedness and response and facilitate information sharing on lessons learned and best practices for policy practice and post-disaster reconstruction programmes”. UN-SPIDER has discussed this topic for the ASEAN region through a series of workshops and published the booklet with UNESCAP titled “Sharing Space-based Information: Procedural Guidelines for Disaster Emergency Response in ASEAN Countries”, which provides guidance on how to prepare for effective use of Earth observation for efficient response by addressing issues such as prerequisite of data, data access, skills and capacity, emergency mapping products and product dissemination. The session will focus on the disaster management policies, laws, institutional arrangements, capacity building, SOPs during emergencies for use of Earth Observation data, emergency communication, and lessons learnt from these initiatives and experiences from mega-disasters.



Day 2

Session 2: International mechanisms for rapid response mapping (with support from International Working Group on Satellite based Emergency Mapping (IWG-SEM))

At global and regional levels, Priority 4 of the Sendai Framework advises “to develop and strengthen, as appropriate, coordinated regional approaches and operational mechanisms to prepare for and ensure rapid and effective disaster response in situations that exceed national coping capacities”. The Sendai Framework also recognizes the value of space-based technology and Earth observation for disaster management and emergency response because they pave the way for building more resilient societies through effective disaster risk management. It includes specific references to the importance of using information gathered by space-based platforms for the purpose of planning effective response to disasters. UN-SPIDER has contributed to International Working Group on Satellite Emergency Mapping (IWG-SEM), which compiled its first deliverable - Emergency Mapping Guidelines². This session will focus on the guidelines, International Charter ‘Space and Major Disasters’, Sentinel Asia efforts, Copernicus Emergency Management System and other existing mechanisms. This session will also discuss preparation needed to perform rapid response mapping, case studies and success stories and provide guidance on becoming Authorized User of the International Charter ‘Space and Major Disasters’.

Session 3: Earth observation for assessing resiliency of ecosystem as an instrument for disaster risk reduction

Earth observation from space is an important tool to estimate and assess damages and losses, as it provides rapid and accurate ways of assessing damage and loss during disasters. Current focus of damage assessment is on sectors like agriculture, housing and road infrastructure, where earth observation images provides reliable and evidence-based information on damage. This session will go a step beyond to discuss resiliency of ecosystems as an instrument for disaster risk reduction. Ecosystems protect infrastructure and communities from disasters and impact of climate change, and can prevent or mitigate disasters. Ecosystems such as wetlands, forests, and coastal systems can provide cost-effective natural buffers against natural events and the impacts of climate change. This session will present case studies and methods of utilizing satellite remote sensing based inputs for assessing health, diversity and condition of ecosystems and contribute to the ecosystem based disaster risk reduction (EcoDRR).

Session 4: Demonstrating advances in Earth observation to build back better

Along with the advancement in space technologies, the types and quantity of data gathered is increasing dramatically. Space-based information is proving to be useful even for post-disaster activities like recovery, rehabilitation and reconstruction. Integrating space data with in-situ data is an effective way for better utilization of the data for supporting decision making to “Build Back Better”. This session will focus on the latest case studies, research and development of integration satellite based assessments with in-situ information to contribute to build back better. This session will encourage a dialogue between experts and the disaster managers to understand requirements of the national disaster management programmes related to recovery, rehabilitation and reconstruction. The focus will be on models, methods, approaches and data integration from multiple sources (including space based information) to build back better.

Breakout sessions:

² <http://un-spider.org/network/iwg-sem>



Three breakout groups will be organised:

1. Multi-hazard early warning;
2. Enhancing capacity of community in providing emergency mapping;
3. Earth observation for achieving targets of Sendai Framework.

Day 3

Session 5: Networking and engagement with the UN-SPIDER network

With the support of Member States, Regional Support Offices and other partners, UN-SPIDER has built a wide network of governmental agencies, international/regional agencies, NGOs, scientific societies and private companies. As a part of technical advisory support services of UN-SPIDER, several technical advisory missions, capacity building programmes and outreach activities have been carried out in Asia, the Pacific, Africa and Latin America. This session will provide an insight into the activities supported by UN-SPIDER in partnership with national disaster management agencies and discuss the ways and means of making these activities more effective and relevant to the needs of Member States. This session will aim at encouraging the engagement of Member States and partner organisations with UN-SPIDER.

Target Audience for the conference

Disaster managers, policy makers, providers of space technology solutions/tools/applications from governments, academia, research, NGO and corporate sector.

Number of expected participants: 100

How to apply and application deadline

Please register online through following link

<https://register.unoosa.org/civicrm/event/info?id=114&reset=1>

Please note that **the final deadline for registration is 8 July 2018**. Online registration is mandatory for all participants.

Financial Support to the participants

Due to funding constraints, the organisers will be able to offer support to only a limited number of participants from Member States and organisations engaged in developing or intend to develop a partnership with UN-SPIDER. The support will defray the cost of travel (round-trip ticket – most economic fare – between the airport of international departure in their country of residence and Beijing) and/or room and board expenses during the duration of the event.

Point of Contact

Technical matters: Ms. Tong TANG (tong.tang@un.org, Tel: +86 10 5281 1372)

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If necessary, you can cc your Email to Mr. Shirish Ravan (shirish.ravan@un.org)



UNITED NATIONS
Office for Outer Space Affairs

Training programme (28 October to 1 November 2018)

The training programme “**Space-based technologies for emergency response mapping**”, co-organised with the Asia Pacific Space Cooperation Organisation, the National Disaster Reduction Centre of China and the Beihang University, will be offered to 25 conference participants. Interested participants for this training programme can contact to Ms. Tong TANG via a separate Email (tong.tang@un.org).