



APRIL 2014 UPDATES

UN-SPIDER at a glance

Call for Experts: UN-SPIDER Technical Advisory Mission to Mongolia

UN-SPIDER invites applications from representatives of relevant institutions, organizations, companies or universities interested in joining the expert team for the upcoming Technical Advisory Mission to Mongolia. The mission will be conducted at the invitation of the National Emergency Management Agency of the Government of Mongolia from 11 to 15 August 2014. The TAM aims to evaluate the current and potential use of space-based and geospatial information in the country and provide recommendations to strengthen disaster management and emergency response efforts in Mongolia. The experts are expected to get involved at the preparatory stage, participate in the TAM and provide observations and recommendations for the final report. Interested experts are kindly requested to send a short background, résumé or CV and indicate their current, planned or possible type of collaboration with Mongolia before **5 June 2014** to Ms Longfei Liu (longfei.liu@unoosa.org) with copy to Mr Shirish Ravan (shirish.ravan@unoosa.org).

Learn more: [Knowledge Portal](#)

UN-SPIDER and LAPAN organise ASEAN workshop

UN-SPIDER and its Regional Support Office in Indonesia, LAPAN, jointly conducted the ASEAN workshop on “Development of mechanisms for acquisition and utilisation of space-based information during emergency response” from 15 to 16 April 2014 in Jogjakarta, Indonesia. The workshop was furthermore supported by the AHA Centre, ESCAP and Australian AID. 55 participants from eight ASEAN member states and disaster managers from provinces of Indonesia participated in the event. They discussed requirements and criteria to respond to major disasters by taking effective advantage of international mechanisms (such as the International Charter and Sentinel Asia). Participants furthermore discussed how to strengthen preparedness for effective emergency response by identifying gaps, capacity

building needs, database needs, financial needs, mapping procedures, and institutional coordination.

Learn more: [Knowledge Portal](#) or contact shirish.ravan@unoosa.org

EI Salvador: UN-SPIDER conducts Technical Advisory Mission

At the request of the General Directorate of Civil Protection of El Salvador, UN-SPIDER carried out a Technical Advisory Mission to El Salvador from 2 to 4 April 2014, with the support of experts from IGAC, CATHALAC, INPE, CRECTEALC and the University of Buenos Aires. By meeting with representatives of various governmental agencies and institutions such as the Directorate of Civil Protection or the National Geographic Institute, the mission team identified institutional strengths regarding the use of geographic information systems in many government agencies. The experts also took note of the on-going efforts conducted by the National Geographic Institute to develop a spatial database infrastructure as a way to facilitate the exchange of data and information among institutions. Recommendations include the enhancement of skills in government agencies and the establishment of an inter-institutional group.

Learn more: [Knowledge Portal](#) or contact juan-carlos.villagran@unoosa.org

Chile Earthquake: UN-SPIDER compiles data

An 8.2 magnitude earthquake occurred off the northern coast of Chile on 1 April 2014 followed by a 2.1 m tsunami wave. Areas along the Northern coast were affected including the cities of Pisagua, Patache and Iquique. Two more earthquakes followed on 3 April (7.2M and 4.6M). On its Knowledge Portal, UN-SPIDER compiled a list of relevant geospatial data sources, satellite data products, and in-situ information. The list is compiled as an open Google docs spread-sheet. Contributions and additions are welcome.

Learn more: [Knowledge Portal](#)



UN-SPIDER participates in ISDR Asia Platform

UN-SPIDER participated in the first ISDR Asia Platform (IAP) meeting of 2014, which was hosted in Bangkok, Thailand, from 22 to 24 April 2014. The meeting served mainly to discuss the preparation of the 6th Asian Ministerial Conference on Disaster Risk Reduction (6AMCDRR) and to compile inputs to the Post 2015 Framework on Disaster Risk Reduction (Hyogo Framework for Action 2). The meeting was an opportunity for ISDR, ESCAP and other UN agencies to plan interventions to ensure that Disaster Risk Reduction (DRR) is well reflected in the Sustainable Development Goals. Additionally, UN-SPIDER discussed with JAXA, Sentinel Asia and ESCAP to make sure the topic of Space is given due consideration in the 6th AMCDRR and in the discussions about the post 2015 Framework for DRR during the World Conference on DRR at Sendai, Japan in March 2015.

Learn more: [Knowledge Portal](#) or contact shirish.ravan@unoosa.org

UN-SPIDER participates in training for International Charter: Space and Major Disasters

Two UN-SPIDER experts participated in the Project Manager (PM) training for the International Charter: Space and Major Disasters from 10 to 11 April in Beijing, China. The PM training is one of the most important efforts to improve the effective operation of the Charter mechanism. The aim of the training was to provide a deeper understanding of the whole process of coordinating Charter activations to effectively

take advantage of this mechanism during emergencies. The training courses took place just before the 31st Board Meeting of the International Charter on 13 to 17 April in Beijing, during which the China National Space Administration (CNSA) took over the secretariat of the mechanism for the next six months.

Learn more: [Knowledge Portal](#) or contact longfei.liu@unoosa.org

UN-SPIDER to conduct Technical Advisory Mission to Bhutan

UN-SPIDER is set to conduct a Technical Advisory Mission (TAM) to Bhutan from 2 to 6 June 2014. The TAM is organised at the request of the Royal Government of Bhutan to evaluate the current and potential use of space-based information in all the aspects of disaster management and to strengthen the disaster risk management in the country. Led by a UN-SPIDER expert, the team comprised of international experts will meet with key disaster management authorities in the Government, UN agencies, regional and international organizations, initiatives, and private companies to discuss in depth the use of space technologies for disaster management, make recommendations and develop guidelines to improve the use of space-based information. The mission also includes a one-day national workshop on space technology and disaster management.

Learn more: [Knowledge Portal](#) or shirish.ravan@unoosa.org

News from our Regional Support Offices

ROSA: Floods in Romania monitored by Copernicus EMS

The Romanian Space Agency (ROSA), UN-SPIDER's Regional Support Office in Romania, provided support to the General Inspectorate for Emergency Situations for the activation of the Copernicus GIO Emergency Management Service (EMS) to monitor the floods that affected the southern part of the country at the end of April 2014. In the framework of the GEODIM project, ROSA, together with the National Meteorological Administration, helped the national Copernicus GIO EMS-authorized user to trigger the service, provided reference data and delivered the flood maps to the relevant users (i.e. civil protection and local authorities). In order to raise public awareness related to natural hazards and their effects, the reference and delineation flood maps were immediately published on ROSA's website.

Read more: [Knowledge Portal](#)

IGAC: First International Seminar on Remote Sensing

The Master's programme in remote sensing of the Catholic University of Manizales of Colombia and UN-SPIDER's Regional Support Office in Colombia, IGAC, will organise their first international seminar on remote sensing from 8 to 10 May 2014 on the premises of the Catholic University of Manizales. The seminar is embedded in a strategy to streamline and promote this research area and further develop technologies to process and analyze remotely sensed data. The seminar focuses on topics such as the application of remote sensing in risk management, specifically in the prevention of forest fires, erosion, deforestation and desertification, as well as in the context of land use and environmental management. This seminar will be carried out by institutions and instructors with extensive knowledge and international experience.

Read more: [Knowledge Portal](#)





ICIMOD: Strengthening ties with the Chinese Academy of Sciences

UN-SPIDER's Regional Support Office in Nepal, the International Centre for Integrated Mountain Development (ICIMOD), and the Chinese Academy of Sciences (CAS) are strengthening their collaboration. In early April, Prof. Bai Chunli from CAS and an eight-member delegation

visited ICIMOD in Nepal to discuss ways to strengthen the collaboration between the two institutions. ICIMOD and CAS have been strategic partners for decades, working in the areas of scientific research and knowledge sharing for sustainable mountain development.

Read more: [Knowledge Portal](#)

News from our Community

Indonesia: Advanced disaster monitoring system

Indonesia recently launched InAWARE, an advanced hazard early warning and monitoring system in order to enhance the country's emergency response capacities. The system was developed by Indonesia's National Disaster Management Agency (BNPB) and supported by the Office of Foreign Disaster Assistance of the United States Agency for International Development (USAID).

Read more: [Knowledge Portal](#)

Solomon Islands: International mechanisms activated for flood response

Heavy rainfall, which caused flash flooding, affected the Solomon Islands in early April. Most affected was the area of the capital, Honaira, where thousands of people were displaced, and at least 19 persons were killed. The 48 hours of heavy rainfall caused the rivers around the capital to burst their banks, destroying important infrastructure – bridges and main roads. In order to support the flood response efforts, two international mechanisms were activated to provide satellite imagery and derived products: the International Charter: Space and Major Disasters and Sentinel Asia.

Read more: [Knowledge Portal](#)

International Charter: Space and Major Disasters was activated six times in April

Additionally to the activation for the flood event in the Solomon Islands, the International Charter: Space and Major Disasters was activated four more times. On 2 April, the UN-SPIDER Regional Support Office Comisión Nacional de Actividades Espaciales (CONAE) activated the mechanism due to a tsunami warning in Chile. The International Charter was activated on 11 April in Australia, after the cyclone that hit the Solomon Islands also reached the Australian coast with heavy winds and rainfall. Another activation in Chile was due to forest fires on 14 April, that took the lives of 12 people

and destroyed more than 500 homes. The mechanism was also activated on 15 April due to a landslide in Tajikistan. On 29 April, the mechanism was again activated to support flash flood response efforts in Afghanistan.

Read more: [International Charter](#)

ESA successfully launched the first satellite of the Copernicus programme – Sentinel 1

The European Space Agency (ESA) launched the Sentinel 1 satellite of the Copernicus programme on 3 April. Sentinel 1 is equipped with instruments to observe the Earth's surface in all weather conditions, day and night. One of the main applications of this mission will be maritime monitoring – ice and ship monitoring, as well as support for oil pollution detection and tracking. The satellite will also provide data on forest management, deforestation monitoring, and for agricultural planning. Another important application of Sentinel 1 is in emergency management – for flood, landslide and volcano monitoring and for the mapping of earthquake-prone zones. Approximately two weeks after its launch, Sentinel 1 already captured flooding in Namibia.

Read more: [Knowledge Portal](#)

Copernicus Master: Earth Observation Competition launched

The European Earth observation programme Copernicus has launched the Copernicus Masters competition. The competition gives recognition to ideas to utilize Earth Observation data for commercial purposes and socially relevant projects. The winners will get cash prizes and technical support in realizing their ideas. The target group of participants include start-up companies from all over the world, students, researchers and also established companies in the area of space-based data implementation. The deadline for submission is **13 July 2014**.

Read more: [Knowledge Portal](#)





IWG-SEM released emergency mapping guidelines

The International Working Group on Satellite-based Emergency Mapping (IWG-SEM) published a working document on mapping guidelines. The document aims to create a baseline for exchange and cooperation among Emergency Mapping Organizations. The guidelines' purpose is to standardize mapping efforts in content management and to provide stakeholders with common principles and strategies for data sharing and communication problem solving.

Read more: [Knowledge Portal](#)

System to track drought dynamics developed by University of Cincinnati geographers

Researchers at the University of Cincinnati's Department of Geography are working on detecting drought patterns across the United States by implementing an event-based spatial-temporal data model. The model targets the dynamics of agricultural drought in order to detect, track and monitor these conditions. Data for this study was collected with the help of the European Space Agency's Soil Moisture and Ocean Salinity satellite. The sensors track spatial and temporal variations in soil moisture, in up to 5 cm depth. Drought is one of the most costly disasters with various impacts. Prediction of time and severity will provide valuable information for disaster risk management and response plans.

Read more: [Knowledge Portal](#)

Satellites show effects of long-term drought on the Congo rainforest

A new analysis of data derived from various satellite sensors shows that Congo's rainforest, the second-largest tropical rainforest in the world, has suffered from long-term drought over the past ten years. The study included data from the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument on NASA's Terra satellite, the NASA/JAXA Tropical Rainfall Measuring Mission, NASA's Quick Scatterometer (QuickScat), and NASA's Gravity Recovery and Climate Experiment, a joint mission with the German Aerospace Center. It revealed a large-scale decline in greenness of the analyzed areas by calculating the "Enhanced Vegetation Index".

Read more: [Knowledge Portal](#)

New Geographic Information System to be launched by Viet Nam in the Mekong Delta

Viet Nam's Ho Chi Minh City National University is working in conjunction with the southwestern provinces of Dong Thap, Soc Trang, Can Tho and Long An to integrate the regions' discrete spatial databases into a unified platform designated as the Mekong Delta Geographic Information System. Local governments in the region will benefit from the streamlined access to updated information on the status of the natural resources allowing for better leadership and management of socio-economic development in the region.

Read more: [Knowledge Portal](#)

Upcoming events

26-30 May 2014, Kiev, Ukraine, Fourth International Conference on Earth Observations for sustainable Development and Security

The goal of the Conference is to discuss the prospects of aero- and space-born data utilization for agriculture, natural resources management, sustainable development and security in the context of GEOSS, GMES/Copernicus, INSPIRE activities and implementation of the Ukrainian segment of GEOSS (GEO-UA system). A particular focus will be on Earth observation applications in agriculture: international initiatives and projects (GEO-GLAM, JECAM, SIGMA), crop mapping and identification, crop yield forecasting, crop area estimation, biophysical parameters retrieval, calibration and validation.

Read more: [Knowledge Portal](#)

5-6 June 2014, Bonn, Germany: United Nations/Germany Expert Meeting on the Use of Space-based Information for flood and drought risk reduction

UN-SPIDER and its partners are jointly organizing the United Nations/Germany Expert Meeting on the Use of Space-based Information for flood and drought risk reduction in Bonn, Germany, on 5 and 6 June 2014. This year's Expert Meeting will focus on the use of space technologies to improve disaster-risk reduction. Floods and droughts will serve as examples for hazard types that have recently affected countries around the globe. The application deadline for funded participation was 22 April 2014, however it is still possible to apply for non-funded participation.

Read more: [Knowledge Portal](#)





22 June 2014, Bangkok, Thailand: Pre-conference event by UN-SPIDER and GFDRR at 6th AMCDRR

The 6th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) will take place from 22 to 26 June 2014 in Bangkok, Thailand. UN-SPIDER invites participants of the 6th AMCDRR to attend a pre-conference event organised by UN-SPIDER and the World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) on 22 June 2014 (09:00-12:30) in Bangkok. The event title is "Investing in Geospatial and space-based information to support DRR & CCA investment" and will contribute to subtheme 2 of AMCDRR: Improving Public Investments for Disaster and Climate Risk Management to Protect and Sustain Development Gains.

Read more: [Knowledge Portal](#)

Apply now! 18-23 September 2014, Beijing, China: United Nations International Conference on Space-based Technologies for Disaster Management "Multi-hazard Disaster Risk Assessment"

The UN-SPIDER Beijing Office is pleased to announce its 4th annual conference, the "United Nations International Conference on Space-based Technologies for Disaster Management - "Multi-hazard Disaster Risk Assessment" from 15 to 17 September 2014, in Beijing, China. Additionally, an International Training Programme entitled "Multi-hazard Disaster Risk Assessment" will be organised for 25 participants of the conference from 18 to 23 September 2014. As three previous events in 2011, 2012 and 2013, this conference offers 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. Please note that only applications for participation submitted online at www.un-spider.org/BeijingConference2014 can be considered. The deadline for application is **29 June 2014**.

Learn more and apply online: [Knowledge Portal](#) or contact juanjuan.han@unoosa.org or shirish.ravan@unoosa.org

