



## AUGUST 2012 UPDATES

### UN-SPIDER AT A GLANCE

#### **UN-SPIDER Conference on Risk Assessment in Beijing open for Applications**

The United Nations International Conference on Space-based Technologies for Disaster Management “Risk Assessment in the Context of Global Climate Change” taking place on 7-9 November 2012 at Zhongmin Plaza, Beijing, is now open for applications. The aim of the conference is to offer a forum for disaster management communities and experts to strengthen their capabilities in using space-based information to assess, monitor and respond to climate change related disaster risks and integrate space technology into long-term disaster risk reduction efforts. UN-SPIDER is organizing this conference jointly with the Ministry of Civil Affairs of the People’s Republic of China. Topics will cover the role of space technology for implementing the outcomes of the recent Rio+20 conference as well as space-based information for early warning, monitoring and assessing vulnerabilities to climate change related hazards. Furthermore, the conference will offer best practices and opportunities for bilateral and multilateral cooperation through specific meetings and breakout sessions.

Read more and apply online: [Knowledge Portal](#)

#### **UN-SPIDER conducts Capacity Building Programme in Sri Lanka**

From 14 to 17 of August 2012, UN-SPIDER conducted the Capacity Building Programme “Space Technology for Improving Hazard Mapping in Sri Lanka”, as a follow-up to the Technical Advisory Mission (TAM) that took place in Sri Lanka in October 2011. The 4-days capacity building training course was jointly organised by UN-SPIDER and the Disaster Management Centre (DMC) in Sri Lanka with support from the Uva-Wellassa University of Sri Lanka, the United Nations Development Programme (UNDP) in Sri Lanka and the National Disaster Reduction Centre of China (NDRCC). 10 Experts from various national and international organizations conducted technical sessions

for 25 participants from Sri Lankan government agencies engaged with DMC. A comprehensive report on the training is available on the Knowledge Portal.

Read more: [Knowledge Portal](#)

#### **Call for Experts for Technical Advisory Mission in Mozambique**

UN-SPIDER is pleased to invite experts to participate in the Technical Advisory Mission (TAM) to Mozambique taking place from 8 to 12 October 2012. The TAM is supported by the Mozambique National Institute of Disaster Management (INGC) and the United Nations Development Programme (UNDP) in Mozambique. Experts should have an organizational mandate to assist in assessing the current use of space-based technology and information for disaster management and emergency response in Mozambique, in identifying potential areas where space-based technology and information could play a greater role and in contributing to improving the access to space-based technology and information. The mission will also discuss how to make disaster-risk reduction efforts in Mozambique more effective. Additionally, an awareness raising workshop will be part of this TAM. Experts who have a relevant mandate and who are involved in bilateral/multilateral activities to promote space-based technologies for disaster management in Mozambique are kindly asked to contact Shirish Ravan: [shirish.ravan@unoosa.org](mailto:shirish.ravan@unoosa.org)

Read more: [Knowledge Portal](#)

#### **Successful Technical Advisory Mission to Cape Verde**

From 29 July to 2 August 2012, UN-SPIDER conducted a Technical Advisory Mission to Cape Verde supported by the generous contributions of the Government of Austria. Upon the invitation of the Serviço Nacional de Protecção Civil (SNPC) a mission team of 12 experts from the disaster management and space technology community, academia



as well as crowdsourcing experts visited Cape Verde. The mission included meetings with key disaster management authorities in the Government, UN agencies, regional and international organizations/initiatives and private entrepreneurs to discuss the topic in depth and make recommendations and develop guidelines to improve the use of space-based information in disaster management and emergency response. For example, the team suggested the establishment of a National Platform for Disaster Risk Reduction and emphasized the need to ensure the sharing of geospatial information as well as the access and use of space-based information in the development of a vulnerability map.

Read more: [Knowledge Portal](#)

### **UNOOSA signs new Funding Agreement with Austria for UN-SPIDER**

UNOOSA has finalized a new funding agreement with the Government of Austria, totalling another EUR 150,000 to the UN-SPIDER Programme. This substantial voluntary contribution will support several major activities carried out by the UN-SPIDER Programme, focusing on Technical Advisory Support (including specific support to Pacific Island countries and Africa), Outreach Activities (including the upcoming “United Nations International Expert Meeting on Crowdsourcing Mapping for Disaster Risk Management and Emergency Response”) and Emergency Response Support. In cooperation with its new Austrian counterpart “Die Österreichische Forschungsförderungsgesellschaft” (FFG), UN-SPIDER identified key activities to be funded and carried out aiming at helping developing countries incorporate and use space-based information for disaster management and emergency response.

Read more: [Knowledge Portal](#)

## NEWS FROM OUR REGIONAL SUPPORT OFFICES

### **IGAC researches Application of Satellite Imagery for flooded Areas**

The Agustín Codazzi Geographic Institute (IGAC), host of UN-SPIDER’s Regional Support Office in Colombia, conducted a case study to identify flooded areas in Colombia during the maximum rainfall period of the years 2010-2012. This activity was carried out in order to promote the importance of remote sensing techniques and the application of digital

### **UN-SPIDER reports on Crowdsourcing Mapping in Imaging Notes Magazine**

In an article for Imaging Notes Magazine, a publication that targets Remote Sensing professionals, UN-SPIDER highlights the growing importance and value of crowdsourcing mapping for disaster and disaster-risk management. The 2012 Issue of Imaging Notes Magazine is dedicated to urgent, interrelated issues of earth remote sensing for security, energy and the environment. The article explains how UN-SPIDER and Secure World Foundation have been conducting a variety of activities during the past two years to identify specific actions that could ensure closer cooperation among the crowdsourcing mapping, disaster/disaster-risk management and space technology communities.

Read more: [Knowledge Portal](#)

### **UNOOSA activates International Charter for Earthquake in Iran**

On 15 August 2012, UNOOSA/UN-SPIDER activated the International Charter: Space and Major Disasters to provide satellite imagery for the assessment of the two strong earthquakes that occurred in Iran on 11 August 2012. The mechanism was activated on behalf of the Iranian Space Agency, host of UN-SPIDER’s Regional Support Office in Iran. The German Aerospace Center (DLR) was selected project manager for this activation. The two strong earthquakes in north-west Iran had been followed by multiple aftershocks. 300 people were killed, more than 3000 people were injured and 16,000 people were left homeless. The quakes measured on Richter scales of 6.4 and 6.3, damaging rural villages in Ahar, Varzghan and Harees, in the city of Tabriz. Some 20 villages in mountainous areas have been completely destroyed whilst hundreds have been damaged.

Read more: [Knowledge Portal](#)

satellite imagery for the extraction of flooded areas. The researchers visualized and monitored the behavior of the phenomenon by visual interpretation of optical and radar sensor data. The digital products derived from the original images characterize and estimate the affected areas by making visible information on geomorphology, geology, topography, hydrology and soil units.

Read more: [Knowledge Portal](#)





### **CATHALAC models Central American coastal Vulnerability to Storm Hazards**

UN-SPIDER's Regional Support Office CATHALAC (The Water Center for the Humid Tropics of Latin America and the Caribbean), elaborated a profile of the relative vulnerability of Central America's Caribbean and Pacific coasts to the hazards of storm-induced coastal erosion and storm surge. The analysis included the seven Central American countries (i.e. Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama) and was done to provide a reference level for decision-making regarding coastal planning. Utilizing powerful computer models embedded in geographic information systems (GIS) to examine such vulnerability along the region's approximately 15,000 km of coastline, the study sought to identify the most vulnerable coasts and to assess how coastal or marine ecosystems affect this vulnerability. The study was carried out by applying a novel modeling toolset developed by Stanford University, the Integrated Valuation of Environmental Services and Tradeoffs (InVEST).

Read more: [Knowledge Portal](#)

### **CATHALAC develops Forest Cover Map of Belize**

UN-SPIDER's Regional Support Office CATHALAC has developed the first version of a 2012 forest cover map of Belize. This research was carried out in collaboration with the Ministry of Forestry, Fisheries, and Sustainable Development of the Government of Belize, Lancaster University of the UK and the Environmental Research Institute of the University of Belize. The work – now pending field validation – was developed using NASA Landsat-7 imagery, and follows on the heels of an earlier 2010 USAID- and NASA-supported study assessing changes in forest cover in Belize over the period of 1980-2010. The current study indicates that Belize's forest cover declined from 62.8% in early 2010 to approximately 61.6% in early 2012. A technical report detailing the assessment's methodology and major findings will be released shortly.

Read more: [Knowledge Portal](#)

### **CATHALAC launches regional Geo-viewer: PortalGIS**

UN-SPIDER's Regional Support Office, the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), launched PortalGIS, a new GIS tool to support environment, disaster-risk and climate change efforts in the

region of Mesoamerica and the Caribbean. PortalGIS is a web-friendly geographic information tool, which, through an interactive portal, provides visual thematic data on the various regional efforts and needs, shares geospatial information and makes it available through the web to the entire community in the region. This useful tool allows users to view and share geospatial information without needing specialized software.

Read more: [Knowledge Portal](#)

### **Pakistan's Space Agency trains for Rescue Operations**

SUPARCO, the National Space Agency of Pakistan and host of UN-SPIDER's Regional Support Office in Pakistan, conducted a hands-on training on the COSPAS-SARSAT programme to enhance the capabilities of search and rescue operators in emergency situations using satellite services. The training was carried out on request of the Civil Aviation Authority and took place in the city of Karachi from 17 to 19 July 2012. COSPAS-SARSAT is a programme established in 1988 aiming to provide accurate, timely and reliable distress alert and location data to help search and rescue authorities assist persons in distress.

Read more: [Knowledge Portal](#)

### **ADRC: Booklet on space-based Information for Tsunami Assessment**

UN-SPIDER's Regional Support Office located in Japan, ADRC (Asian Disaster Reduction Centre), is in the process of producing the booklet "Considerations for effective use of space-based information to assess Tsunami impacts - Lessons learned from the recent Tsunami in Japan". The booklet will be of great value for other nations' disaster preparedness efforts by providing lessons learnt on the Great East Japan Earthquake and the subsequent tsunami. This initiative is an outcome of the UN-SPIDER Regional Support Office (RSO) meeting in February 2012 in Vienna, Austria. Booklets presenting similar lessons learnt will be produced by Iran and Pakistan, focusing on drought and floods, respectively.

Read more: [Knowledge Portal](#)

### **3rd Ukrainian Conference GEO-UA**

The 3rd Ukrainian Conference GEO-UA is being held in Evpatoria (Crimea, Ukraine) on September 3-7, 2012.



The Conference is organized by the State Space Agency of Ukraine, the National Academy of Sciences and by the Space Research Institute of NASU-NSAU, UN-SPIDER's Regional Support Office (RSO) in Ukraine. The Conference aims at discussing the prospects of aero- and space-born data utilization for natural resource management, sustainable development and security in the framework of the activities of the Global Earth Observation System of Systems (GEOSS), the European Programme Global Monitoring for Environment and Security (GMES), UN-SPIDER and the Infrastructure for Spatial Information in the European Community (INSPIRE).

Read more: [Knowledge Portal](#)

### NEWS FROM OUR COMMUNITY

#### **International Charter activated in Philippines, USA, Iran, Russia and four African Countries**

The International Charter: Space and Major Disasters has been activated eight times in August 2012 to provide satellite imagery and maps. The mechanism was triggered for floods in Philippines, Russia, Niger, Senegal and Nigeria, for earthquakes in Iran, wildfires in Algeria and flood for the Gulf coast of the USA. Three of those activations concern Western Africa which has seen the worst rain season in 50 years.

Read more: [Disaster Charter](#)

#### **GIO EMS: New European GMES Mapping Service publishes User Guide**

GMES, the European Earth Monitoring programme, has published a user guide to its new, free of charge emergency mapping service, the GMES Initial Operations Emergency Management Service (GIO EMS-Mapping). The guide is available on the GIO Portal to registered users. GIO EMS is the first GMES service to become operational, having started its operations on 1 April 2012. It continues efforts from EU precursor projects such as SAFER or linkER established in the pre-operational phase. This service, funded by the European Commission, aims at providing actors in the management of natural and man-made disasters, in particular Civil Protection Authorities and Humanitarian Aid, with mapping products based on satellite imagery. The GIO Emergency Management Service has a worldwide coverage. GIO EMS-Mapping is provided only upon activation by Authorized Users, in all phases of the emergency management cycle. A list of Authorized Users has been established derived

#### **NASU-NSAU forecasts Winter Wheat Yield in Ukraine**

UN-SPIDER's Regional Support Office (RSO) in Ukraine, the Space Research Institute NASU-NSAU, has elaborated an operational forecast of the winter wheat yield in Ukraine for 2012 using earth observation data. Due to the winter kill effect, many areas of winter wheat in southern regions of Ukraine have been damaged in the last year. These regions could be identified with satellite imagery. The obtained results were delivered to the Department of Agriculture of the Ukrainian Hydrometeorological Center and Ministry of Agrarian Policy and Food of Ukraine.

Read more: [Knowledge Portal](#)

from the consolidated user lists of the linkER and SAFER precursor projects.

Read more: [Knowledge Portal](#)

#### **New Satellite Sensor to observe Wildfires**

The Visible Infrared Imaging Radiometer Suite (VIIRS) is a new tool for mapping wildfires burning. It is carried by the Suomi National Polar-orbiting Partnership satellite (S-NPP), and it is a very sensitive tool that can detect wildfires in the middle of the night using its "day-night-band". Until now, Terra and Aqua satellites were the main instruments employed for observing fire.

Read more: [SatNews](#)

#### **Esri launches new GIS Tool for Search and Rescue Personnel**

Esri has announced the launch of a new website, MapSAR, that provides GIS tools for search and rescue (SAR) personnel. "The launch of the MapSAR website is the result of a community of search and rescue personnel linked together by their use of GIS," says Russ Johnson, global director of disaster response for Esri. It will enable easy establishment of protocols and workflows to carry out the mapping and planning functions within the incident command structure (ICS). Staff members will be able to apply GIS skills to effectively track search teams and assets for safety and operational efficiency.

Read more: [Esri](#)





### UPCOMING EVENTS

#### **UN-SPIDER Technical Advisory Missions to Solomon Islands and Mozambique**

UN-SPIDER is currently in the final stage of the organization of two missions during this second half of the year. Building upon the continuous UN-SPIDER support to Pacific Island countries (PICs), a TAM will be carried out to Solomon Islands (24 – 28 September 2012) at the invitation of the National Disaster Management Office. The on-going effort in Africa will continue with a TAM to Mozambique (8 – 12 October 2012) at the invitation of the Instituto Nacional de Gestão de Calamidades (INGC). These missions will be carried out thanks to the constant support received from the Government of Austria and the Government of China and will bring together experts to assess the current use of space-based information in the disaster-risk management. The Technical Advisory Mission Team will meet with key disaster management authorities and subsequently make recommendations in the form of a Mission Report.

More information: [markus.woltran@unoosa.org](mailto:markus.woltran@unoosa.org)

#### **“Risk Assessment in the Context of Global Climate Change” – United Nations International Conference on Space-based Technologies for Disaster Management**

United Nations International Conference on Space-based Technologies for Disaster Management - “Risk Assessment in the Context of Global Climate Change” will take place on 7 – 9 November 2012 in Beijing. The event is organized by the United Nations Office for Outer Space Affairs (UNOOSA) and the Ministry of Civil Affairs of the People’s Republic of China. The aim of the conference is to offer a forum for disaster management communities and experts to strengthen their capabilities in using space-based information to assess, monitor and respond to climate change related disaster risks and integrate space technology into long-term disaster risk reduction efforts.

Read more and apply: [Knowledge Portal](#)

#### **Fourth Session of the Global Platform for Disaster Risk Reduction in 2013 announced**

The United Nations Office for Disaster Risk Reduction (UNISDR) will hold the Fourth Session of the Global Platform for Disaster Risk Reduction “Invest Today for a Safer Tomorrow” in Geneva at the International Conference Center from Sunday 19 May to Thursday 23 May 2013, as they announced in late August 2012. All disaster risk reduction

stakeholders are invited to participate. At the Fourth Session of the Global Platform new partnerships and alliances will be created and progress in risk reduction and resilience building will be exchanged and debated. This session also holds special significance as an opportunity to further consult on a post-2015 framework for disaster risk reduction.

Read more: [Knowledge Portal](#)

#### **4th International Conference of Crisis Mappers (ICCM) - Fellowships available**

The International CrisisMappers Conference (ICCM) is a leading humanitarian technology event, bringing together the most important humanitarian, human rights, development and media organizations with the world’s best technology companies, academics, journalists and hackers. Major topics in this year’s conference will include: Big Data, Social Computing, Crowdsourcing, Communicating with Disaster Affected Communities, Quantifying Veracity, Digital Volunteers, Security & Liabilities, Open Data & Open Source Software. This year, Google is sponsoring participants providing a free return flight, free registration, free participation in the Pre-Conference Training Sessions. Applicants need to complete [this application form](#) by Friday, September 7, 2012.

Read more: [Crisis Mappers](#)

#### **United Nations International Expert Meeting on Crowdsourcing Mapping**

After two successful meetings on crowdsourcing mapping in Geneva and Vienna in 2011, UN-SPIDER will be organising on 3 – 5 December 2012 the “United Nations International Expert Meeting on Crowdsourcing Mapping for Disaster Risk Management and Emergency Response”. The meeting will bring together experts from crowdsourcing communities, space agencies, disaster management and civil protection agencies, NGOs, private companies, and regional and international organizations. If you are an expert currently working in any of the relevant areas (disasters, crowdsourcing mapping, space-based information) and would like to participate in the meeting, please consider applying by 19th October 2012.

Read more: [Knowledge Portal](#)

