



## JUNE 2014 UPDATES

### UN-SPIDER at a glance

#### **Expert Meeting on Flood and Drought Risk Reduction concluded**

UNOOSA/UN-SPIDER and its partners, the German Aerospace Center, the German Ministry of Economics and Energy and Secure World Foundation, successfully held the “United Nations/Germany Expert Meeting on Flood and Drought Risk Reduction” in Bonn, Germany from 5 to 6 June 2014. The event brought together more than 60 international experts from Asia, Africa, America and Europe, who are involved in disaster risk management, remote sensing, hydrology and drought management. The meeting concluded with the presentation of a set of recommendations regarding how best to promote the use of space-based applications as a way to reduce the impacts and effects of floods and droughts worldwide. The report on the outcomes and recommendations will be published shortly.

Read more: [Knowledge Portal](#)

#### **57th COPUOS session: Outer Space for a sustainable Earth**

“Challenges to our society, including that of global climate change, and to food security and global health, are all interlinked with disasters, and we need a holistic approach,” said Mr. Azzedine Oussedik of Algeria, as he accepted election to the Chair of the Committee on the Peaceful Uses of Outer Space and opened the 57th session on 11 June 2014. The Committee is the primary body advancing international cooperation and increasing awareness of the peaceful uses of outer space. Member States representatives met from 11 to 20 June in Vienna and discussed space-related issues of global concern including consideration of space and development.

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#### **UN-SPIDER speaks at 57th session of COPUOS**

UN-SPIDER’s Senior Programme Coordinator, Mr Luc St-Pierre, addressed the attending delegations of the 57th

session of the Committee on the Peaceful Uses of Outer Space (COPUOS) on 12 June 2014 in a technical presentation. Mr St-Pierre presented recent UN-SPIDER activities in the areas of Technical Advisory Support, such as missions to Bhutan, El Salvador, Ghana, Indonesia, Kenya, Malawi, Vietnam and Zambia, as well as UN-SPIDER’s training programmes. Mr St-Pierre stressed the importance of UN-SPIDER as a knowledge hub: “Knowledge management and knowledge dissemination of knowledge are central elements of UN-SPIDER and a constant focus of our whole team.”

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#### **Technical Advisory Mission to Bhutan successfully concluded**

From 2 to 6 June 2014, UN-SPIDER carried out a Technical Advisory Mission (TAM) to Bhutan upon invitation of the Department of Disaster Management (DDM), Ministry of Home and Cultural Affairs. The team visited key stakeholder agencies of DDM to take account of issues such as current policy and gaps, availability of geospatial information, the current use of space-based information, data sharing practices, applications of geospatial information, challenges and constraints, existing capacity and needs, institutional linkages and coordination and applications to strengthen disaster risk reduction and emergency response. As a first follow up of the TAM, three representatives of DDM, the Department of Hydro-Met Services and the Department of Geology and Mines participated in the training programme “Multi-level Flood Risk Mapping” jointly organised by UN-SPIDER and UN-SPIDER’s Regional Support Office in Nepal, ICIMOD.

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#### **UN-SPIDER participates in IWG-SEM meeting**

UN-SPIDER, together with representatives of the German Aerospace Center, the European Commission, SERTIT, ITHACA and the US Geological Survey, participated in a





meeting of the International Working Group on satellite-based Emergency Mapping (IWG-SEM) in Oberpfaffenhofen, Germany. The meeting took place from 20 to 21 May 2014 under the chairmanship of ITHACA. In their biannual meeting, the group discussed international harmonization and improvement of cooperation efforts in the domain of emergency mapping, mainly during major, wide area disaster events of global concern.

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### **UN-SPIDER participates in European Space Solutions Conference**

UN-SPIDER's Senior Programme Coordinator, Mr Luc St-Pierre, participated in the European Space Solutions Conference, which took place from 11 to 13 June 2014 in Prague, Czech Republic. At the invitation of EC-COPERNICUS, Mr St-Pierre presented the approach of UN-SPIDER and concepts to reduce vulnerabilities to hazards through good practices in geospatial information management in the panel "From Emergency Response to Risk Reduction". The 3-day conference brought together business and the public-sector with users and developers of space-based solutions.

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### **Technical Advisory Mission to Zambia successfully concluded**

UN-SPIDER and its team of experts carried out a Technical Advisory Mission (TAM) to Zambia from 26 to 30 May 2014. The TAM was conducted upon invitation of the Office of the Vice-President, Disaster Management and Mitigation Unit (DMMU). The team met with about 15 key stakeholder agencies in the country including the Survey Department, the Meteorological Service or the National Remote Sensing Centre. The experts took stock of issues such as policy gaps, availability of satellite data and geospatial information for all relevant institutions, the current use of space-based information in the country, and data sharing practices. As a first follow up of the TAM, information was shared on data collection and very high resolution data acquisition options.

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### **UN-SPIDER organizes pre-event to AMCDRR**

UN-SPIDER and World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) successfully organized a pre-conference event of the 6th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR) in Bangkok. The event entitled "Investing in Geospatial and space-based information to support Disaster Risk Reduction & Climate Change Adaptation investment" was held on 22 June at the Bangkok Convention Center. Over 55 international participants attended the event. Seven presentations were held including from UN-SPIDER, ICIMOD, ADRC, and JAXA. Country experiences from Bangladesh, Indonesia and China were presented. The participants also discussed on the topic "How Earth Observation can be reflected well in HFA2 framework". The pre-event provided inputs to the stakeholder consultation "Scientific, Academic and Research Stakeholders" and to the Technical Session 2 of the AMCDRR, which were consolidated in the final outcome document of the AMCDRR: the "Bangkok Declaration".

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### **OOSA director explores collaboration on Space issues in Geneva**

Dr. Simonetta di Pippo, Director of the United Nations Office for Outer Space Affairs (OOSA), was in Geneva, Switzerland, between 24 and 27 June 2014 to meet with high level representatives of sister agencies of the United Nations system, other international organizations in Geneva and with the Government of Switzerland. She explored opportunities for collaboration in the sector of space tools and applications for sustainable development. The meetings helped assess the requirements for support from those agencies in the use of space data and products in the realisation of their respective mandates, while at the same time raised the visibility of the Office, its programmes and its initiatives.

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## News from our Regional Support Offices

### **NASDRA: “Made In Nigeria” Satellites**

The Nigerian National Space Research and Development Agency (NASRDA) - one of UN-SPIDER's Regional Support Offices - announced on 28 May 2014 that it will develop and build a “Made in Nigeria” satellite by 2018 and accomplish a launch from a Nigerian launch pad by 2030. The announcement was made by Prof. Seidu Mohammed Director General of NASRDA during an interview in Abuja with the News Agency of Nigeria (NAN). In keeping with Nigeria's socio-economic development goals, “the mission and vision of NASRDA is to build indigenous competence in the development, design and building of appropriate hard and software in space technology. The spinoff of electronic, software and commercial space industries allied with the program would be for the benefit of the Nigerian people.” said Prof. Seidu Mohammed.

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### **IGAC: Monitoring Agricultural Crops with Unmanned Aerial Vehicles**

The Colombian Research and Development Centre for Geographic Information (CIAF), which is part of UN-SPIDER's Regional Support Office in Colombia, IGAC, is performing technical studies on airborne data collection using Unmanned Aerial Vehicles (UAVs). The goal of the project is to obtain spectral vegetation indices, used to generate basic and thematic mapping at large scales in order to develop projects in precision agriculture and monitoring of crop fields.

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## News from our Community

### **EUMETSAT: Measuring the temperature of lava with satellites**

Scientists used data from from the Spinning Enhanced Visible and InfraRed Imager (SEVIRI) onboard Meteosat satellite to measure the temperature of the lava lake at Nyiragongo, in the Democratic Republic of Congo. The scientists compared the satellite data with ground data from a thermal camera. This technique was used for the first time during a lava fountain at Mt. Etna in August 2011, by a team from the Istituto Nazionale di Geofisica e Vulcanologia (INGV) in Italy guided by Dr. Gaetana Ganci. “Space-based observations can be a significant help in the difficult task of predicting volcanic eruptions, but even in well-monitored

### **Joint UN-SPIDER/ICIMOD International Training Programme on Multi-level Risk Profiling**

From 9 to 13 June 2014, UN-SPIDER conducted an international training programme on multi-level risk profiling jointly with its Regional Support Office ICIMOD. The purpose of the training programme, taking place in Kathmandu, Nepal, was to improve disaster risk management using space-based and geospatial information by imparting hands-on training to the officials of countries supported by ICIMOD and UN-SPIDER. 20 participants from disaster management agencies and stakeholder departments of ICIMOD Member States participated in the training programme.

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### **Algerian Space Agency tracks land use change with Alsat-2A**

UN-SPIDER's Regional Support Office in Algeria, the Algerian Space Agency, has recently published the results of bi-phase satellite observations on the towns of El Tarf and El Kala and their surroundings. The goal was to monitor urban sprawl and land use changes that might impact on the environment. Based on the earth observation satellite imagery, a diachronic analysis using images of Alsat-2A (from two dates: 8 April 2014 and 11 June 2014) was conducted as an effective way of mapping changes in the urban and natural environments. This method of observation highlighted significant changes in construction of infrastructures and dwelling in both cities.

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volcanoes such as Mt. Etna, predicting eruptions is not a trivial thing.” said Ganci.

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### **United States and Honduras to Test Disaster Response Software in Simulated Hurricane Scenario**

The United States and Honduras joined efforts in Tegucigalpa and Soto Cano Air Base, June 9-12, to demonstrate and assess a mapping tool designed to revolutionize the way governmental and non-governmental organizations from all over the world collaborate in response to disasters and humanitarian crises. Known as GeoSHAPE, the open-source, open-standard software, integrates data from



multiple sources and displays it in a dynamic Internet-based map to provide situational awareness and facilitate the decision making process. “GeoSHAPE bridges the geospatial information sharing gaps we witnessed during the international response to the 2010 earthquake in Haiti, providing a tool for military and civil organizations, local and international, to efficiently coordinate their activities and, in turn, save more lives,” says Juan Hurtado, science advisor to the U.S. Southern Command (USSOUTHCOM).

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### **International Charter activated for floods in Argentina and Brazil**

The International Charter: Space and Major Disasters was activated twice in June in Latin America to provide space-based disaster maps. Both activations were related to flood events, in Argentina and in Brazil. On 12 June 2014 the international mechanism was triggered due to severe flood events in northern Argentina caused by heavy rainfall in previous days. On 14 June, the International Charter was again activated in response to flooding and landslides in Southern Brazil due to heavy rainfall. Maps for both events are available on the International Charter’s website.

Read more: [International Charter](#)

### **Sri Lanka: NASA TRMM data reveals extraordinary flooding**

Data from NASA’s Tropical Rainfall Measuring Mission (TRMM) revealed extraordinary flooding in Sri Lanka caused by unusually strong monsoonal rainfall over the period 31 May - 4 June 2014. The International Water Management Institute responded promptly to the disaster by identifying extreme floods in the region using flood-mapping tools. Giriraj Amarnath, Researcher – Remote Sensing and Water Resources at IWMI, used satellite-derived Precipitation Estimates from the National Aeronautics and Space Administration (NASA)-based satellite Tropical Rainfall Measuring Mission to measure the intensity of the rainfall in the different districts in real time.

Read more: [Knowledge Portal](#)

### **Russia: Launch of GLONASS-M55 satellite into orbit**

On 14 June 2014, Russia launched their GLONASS M55 navigation satellite via a Soyuz launch vehicle, lifting off at 1:16 p.m. EDT from the Plesetsk Cosmodrome. Within a few weeks, this new satellite will become operational and it will transmit an experimental navigation signal in the L3 frequency band, in addition to the standard L1 and L2

signals. The GLONASS system broadcasts navigation signals to Russian military and civilian users around the world. It is Russia’s counterpart to the U.S. Air Force’s Global Positioning System (GPS).

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### **KazEOSat-2: Second Kazakh Earth Observation Satellite is in orbit**

Kazakhstan successfully launched its second Earth Observation satellite KazEOSat-2 on 20 June 2014 from Yasni launch base, Russia. KazEOSat-2, with 6.5 meters spatial resolution, is expected to provide full remote sensing data such as imagery of the Kazakh territory, including monitoring and prevention of disasters as well as defense and security mapping of the country.

Read more: [Knowledge Portal](#)

### **Google buys satellite image provider Skybox**

Google is buying Skybox Imaging for \$500 million in cash. As announced on 10 June 2014 in a press release, this near real-time satellite imaging company will help Google improve its Maps product. Google also expressed the hope that Skybox’s team and technology could help enhancing global internet access and disaster relief.

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### **First set of data from the Global Precipitation Measurement mission published**

The first set of data from the NASA/JAXA Global Precipitation Measurement (GPM) mission is now available to the public. The data set consists of GPM Microwave Imager instrument observations, called brightness temperatures. Brightness temperatures are a measurement of naturally occurring energy radiated, in this case, by precipitation particles like raindrops or snowflakes. All GPM data products will be released to the public by 2 September. GPM had been launched on 27 February 2014.

Read more: [Knowledge Portal](#)

### **AMCDRR: Bangkok declaration on disaster risk reduction in Asia and the Pacific 2014**

Recognizing the achievements of the 2005-2015 Hyogo Framework for Action (HFA) and development of the post 2015 framework for Disaster risk reduction (HFA2), members of the delegations attending the Sixth Asian Ministerial Conference of Disaster Risk Reduction (AMCDRR) issued a declaration to governments and stakeholders in Asia and the Pacific. In the Bangkok Declaration, the delegations call





for governments and stakeholders to enhance resilience at the local level, improve spending and investment in Disaster and climate risk management, encourage a shift in the private sector from response-oriented practices to a prevention mindset, promote innovation, science, and

technology, improve the transparency of and accountability of governance, and build coherence between the framework and processes for sustainable development and climate change.

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## Upcoming events

### **14-15 July 2014, Geneva, Switzerland: First Session of the Preparatory Committee of the 3rd UN World Conference on Disaster Risk Reduction**

In March 2015, Member State delegations will meet in Sendai, Japan, to agree on the next international framework for disaster risk reduction. The Intergovernmental Preparatory Committee for the 3rd World Conference on Disaster Risk Reduction in Geneva was established to review the organizational and substantive preparations for the Conference, approve the programme of work of the Conference, and propose rules of procedure for adoption by the Conference. The second preparatory committee meeting will take place from 17 to 18 November 2014 in Geneva.

Read more: [WCDRR](#)

### **24-28 August 2014, Davos, Switzerland: 5th International Disaster and Risk Conference (IDRC)**

The 5th International Disaster and Risk Conference IDRC Davos 2014 will be held under the theme “Integrative Risk Management - The role of science, technology & practice” from 24 - 28 August 2014 in Davos, Switzerland. IDRC Davos 2014 attempts to find solutions to today’s challenges by managing risks, reducing disasters and adapting to climate change. Focussing on a multi-sectors, multi-stakeholders and multi-disciplines approach IDRC helps to build stronger ties with adequate public-private partnership models among risk management communities and sectors, enabling a move towards a truly integrative way of thinking about disasters and risks. The outcomes will be presented at the UN World Conference WCDRR in Sendai, Japan in March 2015 and aim to influence the post 2015 agenda such as the Post-2015 Framework for Disaster Risk Reduction (HFA2), the Sustainable Development Goals (SDGs) or the successor of the UNFCCC Kyoto Protocol.

Read more: [IDRC](#)

### **18-23 September 2014, Beijing, China: United Nations International Conference on Space-based Technologies for Disaster Management “Multi-hazard**

### **Disaster Risk Assessment”**

The “United Nations International Conference on Space-based Technologies for Disaster Management - “Multi-hazard Disaster Risk Assessment” taking place from 15 to 17 September 2014 in Beijing, is jointly organized by UN-SPIDER and the Ministry of Civil Affairs of the People’s Republic of China. The objective of this conference is to promote the role of space-based and geospatial information in a multi-hazard disaster risk assessment. This conference is the fourth of its kind since 2011 and aims to offer 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. UN-SPIDER is organizing this conference jointly with the Ministry of Civil Affairs of the People’s Republic of China. It will bring together 120 disaster managers, policy makers, providers of space technology solutions/tools/applications from governments, and representatives of academia, research institutions, NGOs and the corporate sector.

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### **22-24 September 2014, Graz, Austria: United Nations/ Austria Symposium on “Space Science and the United Nations”**

This Symposium is organized by UNOOSA and co-sponsored by the Government of Austria, the Committee on Space Research (COSPAR) and the European Space Agency (ESA). One of its objective is to discuss the future role of space science within UNOOSA and reflect where the field of space science is heading and what roles international cooperation and capacity building may be playing in the process. It will also review the history and assess the past accomplishments of the Basic Space Science Initiative under the United Nations Programme on Space Applications as well as relevant past and on-going activities of other United Nations entities. The deadline for application for participation in this event is **20 July 2014**.

Read more: [UNOOSA](#)

