



## APRIL 2018 UPDATES

### UN-SPIDER at a glance

#### **UN-SPIDER participates in 2nd Asian Science and Technology Conference for Disaster Risk Reduction**

In response to the increasing importance and role of science-based technologies in decision-making for disaster risk reduction, the Asia-Pacific office of the United Nations Office for Disaster Risk Reduction (UNISDR) established the Asian Science Technology Academia Stakeholder Group (ASTAAG) in May 2015. The group brings together academic, scientific and technological communities in supporting the implementation of the Sendai Framework for Disaster Risk Reduction (SFDRR). ASTAAG convenes the Asian Science and Technology Conference for Disaster Risk Reduction on a biennial basis, the latest edition was held on 17-18 April 2018 in Beijing, China, with the theme “Science-Policy Dialogue for Implementation of the Sendai Framework”.

[Read more on the UN-SPIDER Knowledge Portal.](#)

#### **UN-SPIDER conducts Technical Advisory Mission follow-up and national training programme in Sri Lanka**

At the request of the Government of Sri Lanka through the Ministry of Disaster Management (MoDM), UN-SPIDER carried out a Technical Advisory Mission (TAM) follow-up activity to understand long-term capacity-building needs and to co-organize a national training course on disaster risk assessments together with two of its Regional Support Offices. During this follow-up activity, the UN-SPIDER team also visited a landslide relic field at Kegalle District of Sri Lanka, the site of a May 2016 landslide that left 120 people dead, where on-site briefing was provided to district level officials about emergency support mechanisms and the role of space technology.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### New resources

#### **New tool for global severe index allows climate community to assess meteorological drought by terrestrial water storage**

A new technique has been developed to help mitigate the effects of drought. The satellite-based drought severity

index (DSI) has been created using terrestrial water storage changes from the Gravity Recovery and Climate Experiment (GRACE) to help identify the timing, extent and severity of droughts for adequate relief efforts.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### News from the community

#### **Using new techniques in Greece to track the effects of flooding**

In late February, flooding and landslides caused by heavy rainfall affected the Farkadona municipality in central Greece, leading to evacuations and loss of farmland in the region. In response, the company Geospatial Enabling Technologies (GET) produced data sets using imagery

generated by the Sentinel-1 satellite in a prototypical algorithm, which in turn uses data from the Sentinel Application Platform (SNAP) and Open Geospatial Consortium (OGC). This data provided complete and comprehensive coverage of the floods, giving authorities the information they needed to better respond and prepare in the future.

[Read more on the UN-SPIDER Knowledge Portal.](#)



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### **CEOS publishes handbook on how Earth observation can support implementation of the SDGs**

The Committee on Earth Observation Satellites (CEOS) has recently released a new handbook in support of using Earth Observation (EO) to help accomplish the United Nations Sustainable Development Goals (SDGs). The handbook delves in-depth into each of the SDGs that it affects and shows how Earth observation can be used to achieve them, highlighting specific cases in which EO has been used in the past to aid in the realisation of goals, such as: hunger alleviation, clean water, sanitation, and more.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **European Union launches latest Earth observation satellite able to track disasters**

The European Union's latest Earth observation satellite, Sentinel-3B, was successfully launched from the Plesetsk Cosmodrome in the Russian Federation on 25 April. The satellite will monitor the Earth's land, oceans and atmosphere. It will also be able to track disasters and provide up-to-date and real-time information to emergency response teams. With a primary focus on oceans, the Sentinel-3B satellite will monitor aquatic biological productivity and marine pollution, in order to map sea-level change and to forecast the sea state for efficient and safe ship routing.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **European Commission and India to share satellite data**

The European Commission (EC) and Department of Space (DoS) of India signed a Cooperation Agreement on 19 March that will enable them to share earth observation data from each other's satellites. The shared space-based information will be used to forecast natural and human-made disasters, to provide emergency response and rescue of people during such disasters, to gather land and ocean data, and for issues related to security, agriculture, climate change and

the atmosphere.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **China launches satellites for disaster warning and emergency response**

China launched three Gaofen-1 Earth observation satellites on 31 March. These high-resolution satellites will be used in a range of different fields, including disaster early warning and emergency response.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **Using GPM software to track cyclone rainfall**

NASA's Global Precipitation Measurement (GPM) mission core observatory satellite has been an integral asset in disaster risk management last month. This satellite is able to produce information on precipitation particles within cloud layers by using an active radar - information that is beneficial in monitoring, predicting, and tracking the progression of cyclones and other extreme weather phenomena.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **India and France to strengthen cooperation on satellite missions**

The Indian Space Research Organisation (ISRO) and the French National Centre for Space Studies (CNES) have signed an agreement to strengthen cooperation in the use of satellite technology on various joint missions.

[Read more on the UN-SPIDER Knowledge Portal.](#)

### **International Charter activated for Russian Federation flooding in the Volgogradskaya**

The International Charter Space and Major Disasters was activated for flooding in the Volgogradskaya Oblast Region of the Russian Federation on 4 April, caused by vast amounts of melting snow that resulted in river water levels rising.

[Read more on the UN-SPIDER Knowledge Portal.](#)



The United Nations Office for Outer Space Affairs (UNOOSA) implements the decisions of the General Assembly and of the Committee on the Peaceful Uses of Outer Space and its two Subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee. The Office is responsible for promoting international cooperation in the peaceful uses of outer space, and assisting developing countries in using space science and technology. In its resolution 61/110 of 14 December 2006 the United Nations General Assembly agreed to establish the "United Nations Platform for Space-based Information for Disaster Management and Emergency Response - UN-SPIDER" as a programme within UNOOSA. UN-SPIDER focuses on the need to ensure access to and use of spacebased solutions during all phases of the disaster management cycle.