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Office for Outer Space Affairs

11th Annual UN-SPIDER Regional Support Offices Coordination Meeting
Tuesday 12 October and Wednesday 13 October 2021
14:00-16:00 Vienna time (UTC+2)
MS Teams – Virtual meeting
Report

Background

In its resolution 61/110 the General Assembly agreed that the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) should work closely with regional and national centres of expertise in the use of space technology in disaster management to form a network of regional support offices for implementing the activities of the programme in their respective regions in a coordinated manner and to take advantage of the important experience and capabilities being offered, and to be offered, by Member States, particularly by developing countries.

The UN-SPIDER programme has 26 Regional Support Offices (RSOs) spread over different regions, with one new RSO integrated in the network in 2021: the National Center of Space Research and Technology in Kazakhstan (NCSRT). RSOs are engaged in supporting activities of UN-SPIDER such as technical advisory support, rapid mapping during emergency response, preparing specific publications and contents for the knowledge portal and contributing to workshops and conferences.

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Introduction and presentations

The workshop was opened by Mr. Coen Bussink, Programme Officer at UN-SPIDER/UNOOSA. He highlighted that the National Center of Space Research and Technology in Kazakhstan (NCSRT) joined the RSO network in 2021. Also, Mr. Coen Bussink informed the RSO network of the end of his appointment at UNOOSA/UN-SPIDER at the end of the month.

NCSRT delivered a presentation on its activities and expertise, particularly on the development of scientific methods and digital technologies for emergency monitoring, ecological, geodynamic and geophysical monitoring. The presentation is shared with the RSO network.

The RSO in Indonesia, LAPAN, demonstrated the monitoring of a major issue of the city of Jakarta: land subsidence (max 8cm/year) using Sentinel-1 data, validated with 11 land subsidence field measurements. Their current projects also focus on improving their established methodologies for disaster management using artificial intelligence and machine learning. LAPAN will merge next year with 3 other institutions in Indonesia to form “BRIN” the National Research and Innovation Agency. The presentation is shared with the RSO network.

The RSO in Norway, GRID-Arendal, presented the Fragility, Conflict and Security/Earth Observation for sustainable development project by a consortium of 8 organizations and companies (http://www.eo4sd-fragility.net/). The presentation is shared with the RSO network.

The RSO in The Russian Federation, EMERCOM, presented a newly developed mobile app, based on infrared satellite imagery, to detect forest fire hot spots. The application is available to any user, in Russian language. The presentation is shared with the RSO network.

The RSO in Greece, Beyond Center, presented the FloodHUB and the FireHUB systems for early warning and crisis management. The presentation is shared with the RSO network.

The RSO in Germany, ZFL, informed the RSO network that ECMWF opened an office in Bonn, Germany in September 2021, and reported on its activities for the years 2020/2021. The newly developed method on locust damage assessment is still being tested and improved for other areas, particularly thanks to the collaboration with the RSO in Pakistan, SUPARCO, who provided data. A recommended practice on this topic could be developed. The presentation is shared with the RSO network.

The RSO in Pakistan, SUPARCO reiterated its commitment to produce a recommended practice on landslide subsidence. It also highlighted the need to focus on hazard assessment in training courses, to transition from the post-disaster phase to the prevention phase.

Knowledge Portal and capacity-building

Mr. Juan Carlos Villagran provided information on recent developments incorporated into the UN-SPIDER Knowledge Portal in the summer of 2021 including an upgrade of the content management system DRUPAL that is used to host the Knowledge Portal, the new layout that is aligned with the UN standards for UN websites, and new content introduced in recent months. Mr. Villagran de Leon also presented some statistics on visitors to the Portal, noting that in recent months Philippines and India have been at the top of the list of visitors. He also presented statistics on visits by developing countries supported by UN-SPIDER and regarding visitors to the French and Spanish versions.
UFSM, the RSO in Brazil, discussed the topic of the UN-SPIDER recommended practices, and raised some discussions points to consider for future development of the Recommended practices. UFSM mentioned the need for developing new Recommended practices, and it is recommended that the RSOs network work together to create, test, and evaluate the Recommended practices, but also adapt them in other areas. It can also be beneficial to work with partners outside the RSO network.

UFSM suggested that new Recommended practices should be developed based on a review of existing Recommended Practices and needs for new ones. The feedbacks of the users of the Recommended practices are also particularly important to take into consideration, and LAPAN emphasized the need to verify the practical use of the Recommended practices with end users, especially when the Recommended practice is adapted to another region.

Mr. Juan Carlos Villagran mentioned the need for a recommended practice on oil spill monitoring and NCSRT agreed to work on this topic, as they have expertise in oil spill monitoring using SAR Sentinel-1 imagery.

The RSO in Mexico will continue supporting UN-SPIDER with translations of the resources of the Knowledge Portal to Spanish language.

The RSO in Romania, ROSA, suggested that the Knowledge Portal also includes exercises with self-checked solutions, like quiz for younger public.

Online learning environment

Mr. Juan Carlos Villagran commented that UN-SPIDER aims to develop an online learning environment to facilitate self-learning efforts on solutions developed by the space community that can be used in disaster management applications. He commented that the proposed online learning environment would include content already available in the UN-SPIDER Knowledge Portal and in other websites or portal and would also include new content that needs to be generated.

The learning environment would be an entry point for staff in disaster management agencies, other government agencies, and other stakeholders in developing countries who need to become aware of the solutions developed by the space community to address the challenges posed by natural and technological hazards.

Mr. Villagran de Leon invited the RSOs to contribute to the design and implementation of the learning environment, commenting that UN-SPIDER would like to launch this learning environment by the end of 2022 or the spring of 2023.

Mr. Shirish Ravan cited the example of the Massive Open Online Course on "Geospatial Applications for Disaster Risk Management" launched jointly by UN-SPIDER and the UNOOSA's regional centre in India (www.cssteap.org) which fetched participation of over 30,000 from over hundred countries and invited RSOs to propose MOOCs based on their strengths and experience.

Cooperation amongst the RSOs network

The RSO in Mexico, AEM, informed the RSO network of the organisation of a workshop in Mexico regarding the use of space assets and satellite imagery in the first quarter of 2022, and asked for the RSOs network support to participate in this workshop to share experience and lessons learned.

AEM also informed that the initiative GP-STAR (Global Partnership on Space Technology Applications for Disaster Risk Reduction): https://www.un-spider.org/network/post2015_drr will resume. The partnership was launched by UN-SPIDER and nearly 30 other international and regional organizations and national agencies and universities in March 2015 during the Sendai World Conference on Disaster Risk Reduction A meeting will take place in March 2022, and all RSOs are encouraged to participate.

The RSO that are universities discussed on how to strengthen cooperation, with for instance implementing some exchange of students for short trainings. The RSO in Israel suggested to start with students exchange of knowledge during monthly seminar for students to present their work and receive feedbacks from pairs.

The RSO in Israel, BGU, updated the RSO network on its ongoing research on multihazard event that hit Indonesia on 28 September 2018. The RSO in Israel works on a case study of damage assessment in rural areas in Palu, with SAR and optical data. This raised interest from the RSO in Indonesia, LAPAN, and both RSOs agreed to collaborate to exchange inputs in this area.

The RSO in Mexico expressed its interest for the global coverage early warning system for wildfire presented by the RSO in Israel, who agreed to aid in providing access to the data once the system becomes operational.

The Bonn office expressed its intention to further work on forest fires with the RSOs having this expertise and the Beijing Office presented a request by SUPARCO for a thematic session on probabilistic cyclone hazard assessment in the context of climate change. The main focus of the intended session is to investigate the Wind and Storm Surge Models representing the Arabian Sea.

Conclusion

To conclude the meeting, the Bonn and the Beijing offices presented the proposed plan of work for the year 2022 addressing activities in Asia, Africa and Latin America and invited RSOs to become engaged in the activities included in the plan of work. The Beijing office expressed the need to strengthen activities in the Asian region and called for continuing cooperation within the RSO network. The next annual RSO meeting will be organized next year in accordance with the pandemic conditions.

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ANNEX 1: Agenda

11th UN-SPIDER RSO Meeting – Agenda

Tuesday, 12th of October 2021

Vienna time (UTC+2)	Topic	Speaker
13.50-14.00	Audio/video test for presenters	Presenters of today
14.00-14.05	Welcome remarks	Mr. Coen Bussink
14.05-14.15	Tour de table/introduction of participants	All
14.15-14.27	**NCSRT (RSO in Kazakhstan)** Overview of expertise and plans	Mr. Assylkhan Bibossinov
14.27-14.32	**BGU (RSO in Israel)** Update	Ms. Shimrit Maman
14.32-14.44	**NASRDA (RSO in Nigeria)** Activities of the RSO	Mr. Godstime James
14.44-14.56	**UFSM (RSO in Brazil)** Development of new recommended practices	Ms. María Silvia Pardi Lacruz
14.56-15.08	**AEM (RSO in Mexico)** Workplan 2022, UN-SPIDER Workshop in Mexico	Mr. Julio Castillo
15.08-15.20	**UN-SPIDER** Knowledge Portal and efforts to develop an Online Learning Environment	Mr. Villagran de Leon
15.20-15.35	DISCUSSION on capacity-building	All
15.35-15.40	Closing of the first day	Mr. Villagran de Leon

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Wednesday, 13th of October 2021

Vienna time (UTC+2)	Topic	Speaker
13.50-14.00	Audio/video test for presenters	Presenters of today
14.00-14.05	Opening of the meeting	Mr. Coen Bussink
14.05-14.17	**LAPAN (RSO in Indonesia)** Monitoring land subsidence in Jakarta with Remote Sensing	Mr. Muhammad Rokhis Rhomarudin
14.17-14.29	**GRID-Arendal (RSO in Norway)** ESA-funded project with WB on Fragile states	Mr. Valentin Yemelin
14.29-14.41	**EMERCOM (RSO in Russia)** Newly developed app for detecting forest fires	Mr. George Korolev
14.41-14.53	**NOA (RSO In Greece)** Fire hub and Flood hub systems for early warning and crisis management	Ms. Alexia Tsouni Ms. Stella Girtsou
14.53-15.05	**ZFL (RSO in Germany)** Update	Mr. Klaus Greve Mr. Adrien Strauch
15.05-15.17	**SUPARCO (RSO in Pakistan)** Update	Mr. Muhammad Farooq
15.17-15.29	**UN-SPIDER** Probabilistic Cyclone Hazard and Risk Assessment in the context of Climate Change	Mr. Shirish Ravan
15.29-15.44	DISCUSSION on possible programmes in the remaining part of 2021 and the upcoming year	All
15.44-15.49	Closing remarks	Mr. Shirish Ravan

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ANNEX 2: List of participants

Last name	First name	Organization	Country
Araújo Sousa Júnior	Manoel	UFSM	Brazil
Badea	Alexandru	ROSA	Romania
Bibossinov	Assylkhan	NCSRT	Kazakhstan
Castillo Urdapilleta	Julio Cesar	AEM	Mexico
Farooq	Muhammad	SUPARCO	Pakistan
Gkirtsou	Stella	Beyond Center	Greece
González Palacio	Mónica Patricia	IGAC	Colombia
Greve	Klaus	ZFL	Germany
James	Godstime	NASRDA	Nigeria
Kaldybayev	Azamat	NCSRT	Kazakhstan
Khomarudin	Muhammad Rokhis	LAPAN	Indonesia
Korolev	George	EMERCOM	Russian Federation
Haseeb Rabbani	Ahmad	SUPARCO	Pakistan
Maman	Shimrit	BGU	Israel
Odia	Belinda	NASDRA	Nigeria
Oyewumi	Ademuyiwa	NASRDA	Nigeria
Pardi Lacruz	Silvia	UFSM	Brazil
Romero Ruíz	Jesús Roberto	AEM	Mexico
Strauch	Adrian	ZFL	Germany
Schreier	Jonas	ZFL	Germany
Tichouiti	Kamel	ASAL	Algeria
Towashiraporn	Peeranan	ADPC	Thailand
Tsouni	Alexia	Beyond Center	Greece
Vetrita	Yenni	LAPAN	Indonesia
Yemelin	Valentin	GRID-Arendal	Norway
Bourdet	Alice	UNOOSA	
Bussink	Coen	UNOOSA	
Ravan	Shirish	UNOOSA	
Villagran de Leon	Juan Carlos	UNOOSA	