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TEN YEARS OF KNOWLEDGE AND EXPERIENCE UNDER UN-SPIDER TO BRING
SPACE-BASED DATA AND INFORMATION IN DISASTER MANAGEMENT

Abstract

To reach the goals of the 2030 Agenda for Sustainable Development, nations need to plan and act with a greater understanding of their environment and of the impacts that internal and external driving forces have on their efforts to reduce disaster risks, prepare better to manage losses and damages triggered by disasters, in planning adaptation to climate change and in their general efforts towards sustainable development.

Data, information and services generated from Earth observation (EO) satellites, global navigation satellite systems (GNSS) or telecommunications satellites are now resulting in products that are part of knowledge-based decision-making processes in many countries, sometimes well streamlined in planning processes. To facilitate this integration, the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) implemented by the United Nations Office for Outer Space Affairs (UNOOSA) bridges the gap between space technology providers and disaster managers, offering specific technical advisory and capacity building services that enable countries to use space-based information in disaster management.

In the ten years since its establishment, UN-SPIDER helped more than 30 countries in increasing the access to and use of space-based technologies and information for disaster management. In the process, the platform built a significant knowledge base shared through a dedicated Knowledge Portal (www.un-spider.org) and has followed-up with capacity building efforts in most of those countries. A compilation of all recommendations and suggested actions identified through that assistance on issues such as “policy and coordination”, “awareness raising”, “capacity building and institutional strengthening”, “strengthening international cooperation”, “accessing and processing data and information management” now serves to develop collaborations at the national, regional and global levels for: 1) the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030; and 2) the development of capacity of nations to be prepared for the impacts of hazards during the full cycle of disaster management.

This paper presents the approach of UN-SPIDER and how UNOOSA provides its support under the umbrella of the 2030 Agenda for Sustainable Development. Through the design and promotion of innovative solutions integrating the capabilities of EO, GNSS applications and satellite telecommunications, UN-SPIDER will continue to serve as a global knowledge platform supporting authorities responsible for disaster management. It will also be argued that the approach and methods of UN-SPIDER will also guide UNOOSA in working with space actors in other important domains such as environmental monitoring and natural resources management, adaptation to climate change or public health.