

A hand is shown holding a glowing blue wireframe globe, which is superimposed over a laptop screen. The background is a blurred image of a person's arm and hand reaching towards the laptop. The text is overlaid on the left side of the image.

OPEN DATA & OPEN KNOWLEDGE Workshop

UNOOSA - UN-SPIDER and GEO Knowledge Hub - leveraging Open applications in delivering training in countries

Nina Kicking, UNOOSA

Lorant Czarán, UNOOSA/UN-SPIDER



UNOOSA - Capacity-building for a better future



**Space for
Women**



**Space Law for New
Space Actors**



UN-SPIDER



**Access to Space
for All**



**Space for Persons
with Disabilities**



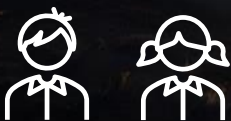
Space Economy



**Space for
Climate Action**



**International
Committee on GNSS**



Space for Youth



**Space
Sustainability**



**Space for
Water**

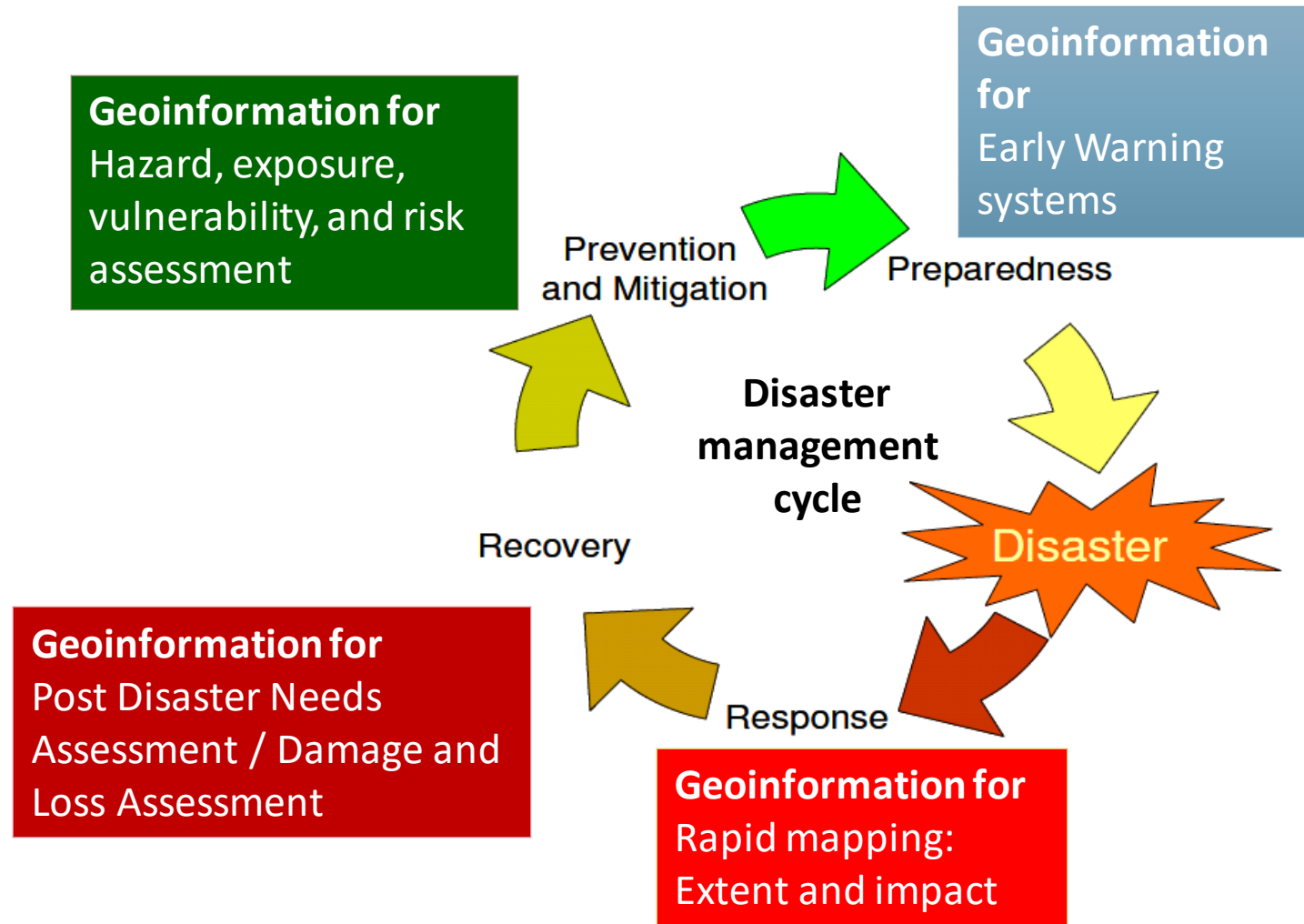


UN-SPIDER Mandate within UNOOSA

United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

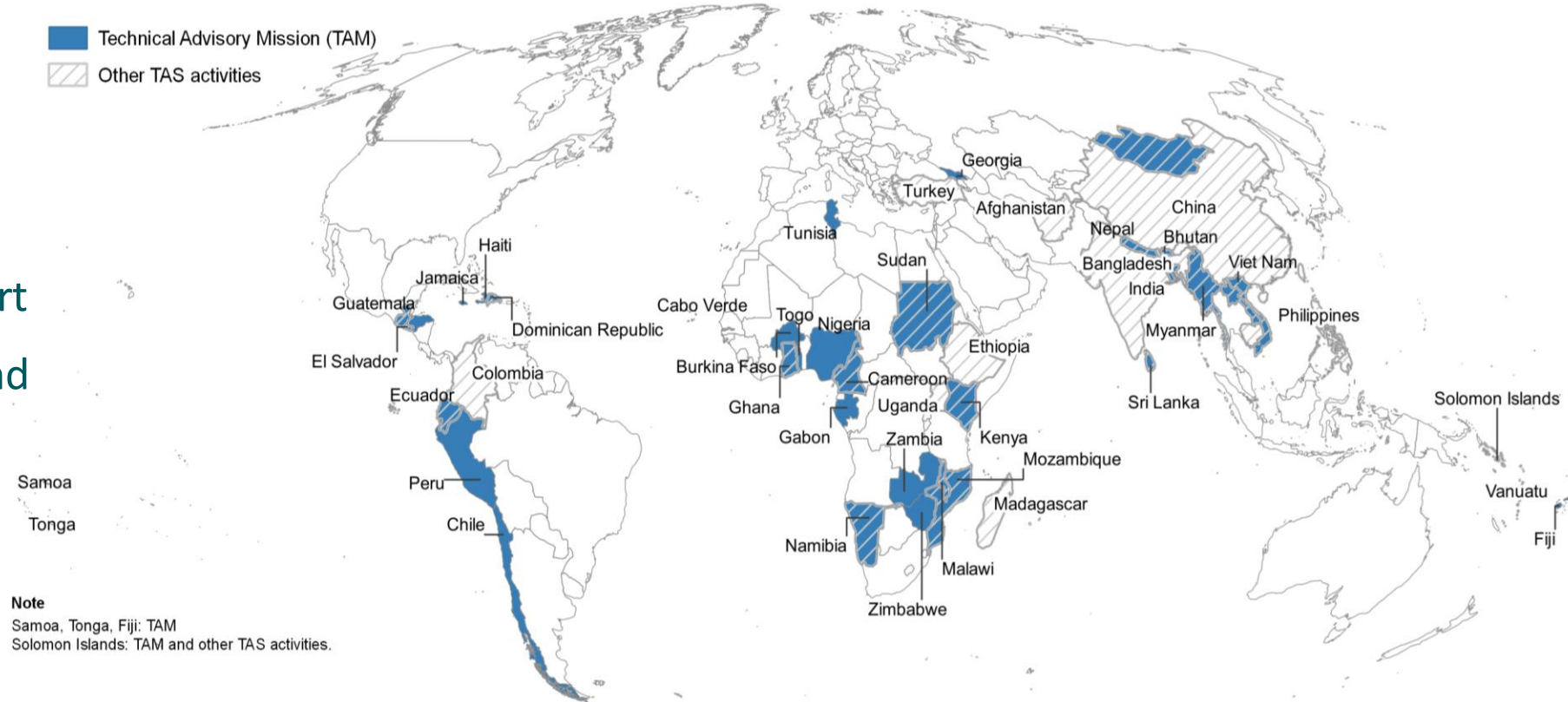
Ensure that all countries have access to and develop the capacity to use all types of space-based information (EO, GNSS, SatComms) to support the full disaster management cycle

United Nations Resolution 61/110, Dec. 2006



UN-SPIDER to-date

- 55 (LMI/SID) States benefited from technical advisory services and capacity building
- 41 formal Technical Advisory Missions and follow up support
- Over 100 technical support and expert missions
- ON DEMAND only!
- Countries sponsored with data support, training workshops and relevant conferences
- Emergency Response support with satellite data provision and mapping in over 33 countries



Knowledge Portal

Fostering Cooperation

Strengthening Capacity

Technical Advisory Support

We are not doing it alone...

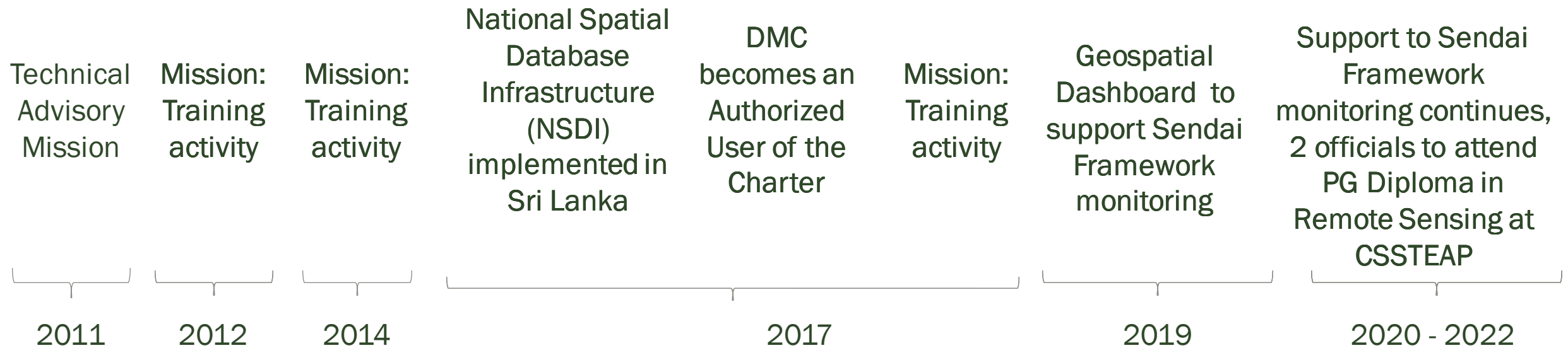
(voluntary)
27 Regional
Support
Offices
to
UN-SPIDER



How UN-SPIDER engages with Member States - example

Sri Lanka: build capacity for National Spatial Database Infrastructure (NSDI), Sendai Framework monitoring tools and for support during emergencies

Staff of government agencies of Sri Lanka mobilised to UN-SPIDER events



UN-SPIDER Knowledge Portal

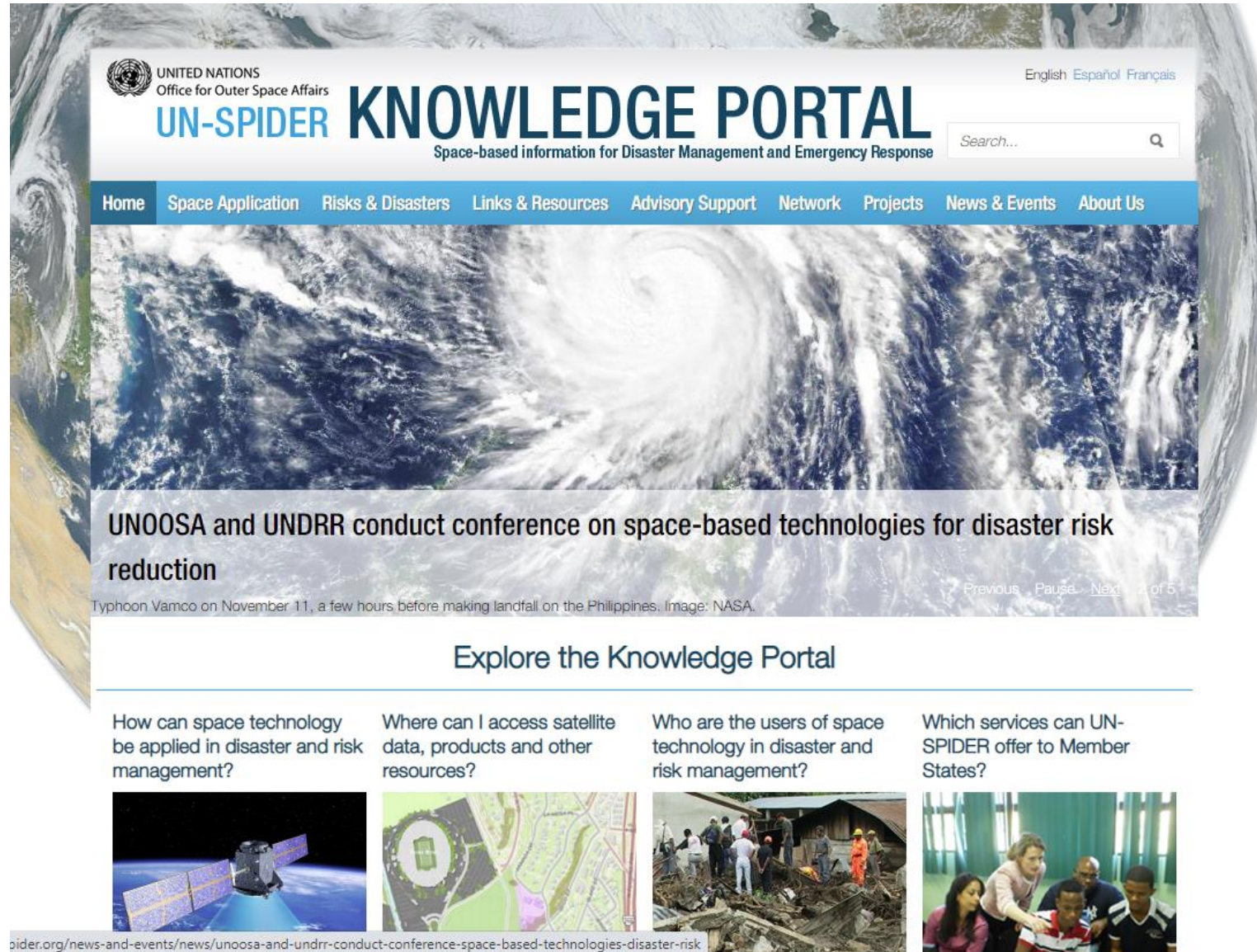
Gateway to space-based information

Available in English, Spanish and French

More than 9,100 content items in 2020

40,000 visitors per month on average since the year 2020

Step-by-step procedures to process satellite imagery



UNITED NATIONS
Office for Outer Space Affairs
UN-SPIDER KNOWLEDGE PORTAL
Space-based information for Disaster Management and Emergency Response

English Español Français

Search...

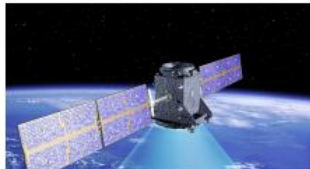



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UNOOSA and UNDRR conduct conference on space-based technologies for disaster risk reduction

Typhoon Vamco on November 11, a few hours before making landfall on the Philippines. Image: NASA.

Previous Pause Next 1 of 5

Explore the Knowledge Portal

How can space technology be applied in disaster and risk management?	Where can I access satellite data, products and other resources?	Who are the users of space technology in disaster and risk management?	Which services can UN-SPIDER offer to Member States?
			

spider.org/news-and-events/news/unoosa-and-undrr-conduct-conference-space-based-technologies-disaster-risk

UN-SPIDER as Capacity Builder

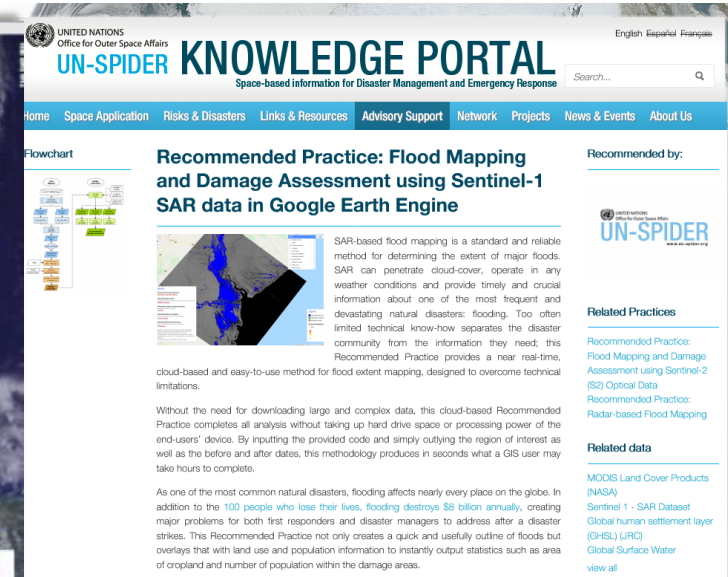
Capacity-building and
institutional strengthening

*Training courses on the use of
Earth observation in disaster
management – **over 1,500
national experts trained since
2008!***

Procedural guidelines

Recommended Practices

Massive open online courses



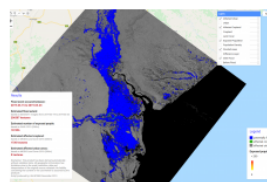
Recommended practices with open data



Flowchart



Recommended Practice: Flood Mapping and Damage Assessment Using Sentinel-1 SAR Data in Google Earth Engine



SAR-based flood mapping is a standard and reliable method for determining the extent of major floods. SAR can penetrate cloud-cover, operate in any weather conditions and provide timely and crucial information about one of the most frequent and devastating natural disasters: flooding. Too often limited technical know-how separates the disaster community from the information they need; this Recommended Practice provides a near real-time, cloud-based and easy-to-use method for flood extent mapping, designed to overcome technical limitations.

Without the need for downloading large and complex data, this cloud-based Recommended Practice completes all analysis without taking up hard drive space or processing power of the end-users' device. By inputting the provided code and simply outlining the region of interest as well as the before and after dates, this methodology produces in seconds what a GIS user may take hours to complete.

Recommended by:



Related Practices

[Recommended Practice: Flood Mapping and Damage Assessment using Sentinel-2 \(S2\) Optical Data](#)
[Recommended Practice: Radar-based Flood Mapping](#)

Related data

[MODIS Land Cover Products \(NASA\)](#)
[Sentinel 1 - SAR Dataset \(ESA\)](#)
[Global Human Settlement Layer \(GHSL - JRC\)](#)
[Global Surface Water \(JRC\)](#)

[view all](#)

Related Software

UN-SPIDER and GEO Knowledge Hub

- Cooperating with GEO since 2016 to replicate Knowledge Portal records with GEO Portal/Hub; automatic exchange of relevant information and data resources
- Harvesting approach tested and applied; to be reviewed
- Two-way resource exchange - beneficial to enrich knowledge pool for the UN-SPIDER national capacity building
- Expanding Un-SPIDER series of recommended practices and step-by-step procedures using open data and open software tools through GEO Knowledge Hub as possible
- Closer cooperation and coordination as a future target

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