\*\* June 2022 News from Sentinel Asia Project Office \*\*

Topics:

- 1. [News] Emergency Observation of Disasters
- 2. [News] Sentinel Asia Web-GIS has been updated!
- 3. How to Send an Emergency Observation Request
- 4. Using the Sentinel Asia Operation System, OPTEMIS

[News] Emergency Observation of Disasters (as of 29 June)

 Coastal Flood in Indonesia on 23 May, 2022 (GLIDE Number SS-2022-000219-IDN)
 A tidal wave hit the northern coast of Central Java, Indonesia, and caused coastal flooding on 23 May. According to Antara News, wide areas on the northern coast were affected.
 (<u>https://en.antaranews.com/news/231369/panturas-most-areas-affected-by-coastal-floodingtidal-waves-bnpb</u>)

The Institute of Technology Bandung (ITB) made an Emergency Observation Request (EOR) to Sentinel Asia on 27 May. Among Data Provider Nodes (DPNs), the National Applied Research Laboratories (NARL), the Indian Space Research Organisation (ISRO), and the Japan Aerospace Exploration Agency (JAXA) provided data. Among Data Analysis Nodes (DANs), the Asian Institute of Technology (AIT), the Mohammed Bin Rashid Space Centre (MBRSC), and the Earth Observatory of Singapore (EOS) provided their VAPs. Information on the latest response by Sentinel Asia is available at

the following link:

https://sentinel-asia.org/EO/2022/article20220523ID.html



Satellite image (FORMOSAT-5) provided by NARL



Satellite image (ALOS-2) provided by JAXA



Satellite image (Resourcesat-2a) provided by ISRO



Value-Added Product by EOS



Value-Added Product by MBRSC



Value-Added Product by AIT

(2) Volcano eruption in the Philippines on 5 June, 2022 (GLIDE Number VO-2022-000227-PHL)

On 5 June, Mount Bulusan in the Philippines erupted, followed by another eruption on the 12th. The volcano emitted plumes and ash, according to GMA News.

(https://www.gmanetwork.com/news/scitech/science/834947/10-volcanic-quakes-recorded-inbulusan-volcano-alert-level-1-remains/story/)

The Philippine Institute of Volcanology and Seismology (PHIVOLCS) made an EOR to Sentinel Asia on 13 June. This EOR was escalated to the International Disasters Charter. PHIVOLCS assumed the role of Project Manager for this Charter activation. Among DPNs, JAXA, ISRO, NARL, and the Geo-Informatics and Space Technology Development Agency (GISTDA) provided data. Among DANs, MBRSC provided their VAPs. Information on the latest response by Sentinel Asia is available at the following link: https://sentinel-asia.org/EO/2022/article20220605PH.html



Satellite image (ALOS-2) provided by JAXA



Satellite image (Resourcesat-2a) provided by ISRO



Satellite image (FORMOSAT-5) provided by NARL



Satellite image (THEOS-1) provided by GISTDA



Value-Added Product by MBRSC

(3) Flood in India on 15 June, 2022 (GLIDE Number FL-2022-000213-IND)Heavy rain continued in Assam, India, and caused massive flooding. According to The Hindu, nearly 2 million people were affected by 18 June.

(https://en.antaranews.com/news/231369/panturas-most-areas-affected-by-coastalfloodingtidal-waves-bnpb)

ISRO made an EOR to Sentinel Asia on 21 June. Among DPNs, JAXA and GISTDA provided data. In addition, NARL planned to provide its data. Among DANs, EOS, ISRO, MBRSC, and AIT provided their VAPs. Information on the latest response by Sentinel Asia is available at the following link:

https://sentinel-asia.org/EO/2022/article20220615IN.html



Satellite image (ALOS-2) provided by JAXA



Satellite image (THEOS-1) provided by GISTDA



Value-Added Product by EOS



Value-Added Product by AIT



Value-Added Product by ISRO



Value-Added Product by MBRSC

(4) Flood in Bangladesh on 18 June, 2022 (GLIDE Number FL-2022-000217-BGD)
The rain also caused flooding in Bangladesh. According to ReliefWeb, around 4 million people (about 40 per cent children) have been affected by the flash flooding in Sylhet Division.
(<u>https://reliefweb.int/report/bangladesh/bangladesh-country-office-humanitarian-situation-report-no-2-north-eastern-flash-flood-19-june-2022</u>)

The Department of Disaster Management (DDM) of Bangladesh made an EOR to Sentinel Asia on 24 June. Among DPNs, JAXA provided data. In addition, GISTDA planned to provide its data. Among DANs, AIT provided their VAPs. Information on the latest response by Sentinel Asia is available at the following link:

https://sentinel-asia.org/EO/2022/article20220618BD.html



Satellite image (ALOS-2) provided by JAXA



Value-Added Product by AIT

(5) Earthquake in Afghanistan on 22 June, 2022 (GLIDE Number EQ-2022-000232-AFG) A magnitude 5.9 earthquake hit Afghanistan on 22 June. According to CNN, at least 1,000

people were killed, 2,000 injured, and 10,000 homes destroyed.

(https://edition.cnn.com/2022/06/26/world/afghanistan-disease-outbreak-earthquake-survivorsintl-hnk/index.html)

International Centre for Integrated Mountain Development (ICIMOD) made an EOR to Sentinel Asia on 27 June. Among DPNs, JAXA and ISRO provided data. In addition, NARL planned to provide its data. Among DANs, EOS provided their VAPs. Information on the latest response by Sentinel Asia is available at the following link: <u>https://sentinel-asia.org/EO/2022/article20220622AF.html</u>



Satellite image (ALOS-2) provided by JAXA



Satellite image (CARTOSAT-2E) provided by ISRO



Value-Added Product by EOS

- 2. [News] Sentinel Asia Web-GIS has been updated!

By Yuki TAKAKURA (Sentinel Asia Secretariat / JAXA)

### **About Sentinel Asia Web-GIS**

Web-GIS is a web-based tool for easy browsing of satellite observation data or processed products with your own web browser, requiring only an internet connection. Sentinel Asia Secretariat launched the Web-GIS service for its Joint Project Team (JPT) members in November 2019 and continues to operate the service. When we receive Emergency Observation Requests (EORs), most of the satellite observation data from Data Provider Node (DPN) and all the processed products from Data Analysis Node (DAN) are displayed on Web-GIS. This service has been developed primarily for the benefit of visitors who are not accustomed to satellite imageries or who want to brows Sentinel Asia data at a glance.

## Web-GIS has been updated!

The secretariat updated the Web-GIS page in December 2021. A sample page of the new Web-GIS is shown below. Please access the page and check the content for yourself.

【NEW Web-GIS URL】 ■Flood, Landslide in Timor-Leste on 4 April, 2021 https://storymaps.arcgis.com/collections/0ff1606cecda47de8abbfe7ebeb13a78?item=1

[ID] SA\_USER5[PW] questionnaire2021\*Internet Explorer (IE) is not recommended.



Sample of new Web-GIS page

# **Updated contents**

## 1. Summarizing the information on the page

You can change the information being displayed simply by clicking the tabs at the top of the page. The previous version had many tabs showing the data provider organizations. In this updated version, only three tabs are displayed.

When you click the "VAP\_ALL" tab on the left, all the Value-Added Products (VAPs) provided by the member organizations are displayed (this is the default status). Clicking the "Satellite" tab in the center, you will see all the satellite observation data provided. For the "Sentinel Asia portal" tab in the right, you will see the page linked to the Sentinel Asia's Emergency Observation Request (EOR). (Please note that an "ALOS-2 RGB composite" tab may also be added in some cases.)



Similar information is now compiled in a single tab to summarize the information, enabling the user to easily compare multiple VAPs and observation data. This also ensures that pages are loaded more quickly when transferring the tabs, guaranteeing a stress-free experience.

### 2. Simpler with fewer Widgets

Widgets are located in the upper-right section. The previous version displayed many widgets, some of which were not frequently used. This updated version has a simpler presentation, showing only four very useful widgets. The functions of the new widgets are as follows.

- About: Shows a summary of the information displayed.
- · Layer List: Selects the information to be displayed.
- Swipe: Enables to hide the information displayed at the top and compare it with the information below it.
- · Basemap Gallery: Changes the background map (default map is the Open Street Map).



### 3. Displaying the analysis area of VAPs

The previous version did not display the analysis area of the VAPs. However, the new version shows the analysis area of the VAPs inside a red frame, so when you see that there is no confirmation of damage within the area, this makes it easier to understand that the area is not damaged.

## Questionnaire feedback from Sentinel Asia members

In January 2022, the Secretariat conducted a questionnaire on the updated version of Web-GIS to obtain feedback from Sentinel Asia members. We appreciate the cooperation of the 18 members who responded. All of the respondents stated that they prefer the updated version and are satisfied with it.



Results of the questionnaire (based on 18 replies)

Here is some of the feedback:

- Very helpful tool for requestor and other JPT members!!
- We are very thankful for the membership.

### Conclusion

Sentinel Asia Web-GIS will continue to be improved for the benefit of the members. If you have any requests or suggestions for improvements, please do not hesitate to contact the Secretariat.

3. How to send an Emergency Observation Request

JPT member organizations are entitled to send an Emergency Observation Request (EOR) for disasters in the Asia-Pacific region. Please refer to <u>https://sentinel-asia.org/e-learning/Emergency Observation Request.html</u>.

EOR Order Desk: Asian Disaster Reduction Center (ADRC) HP: http://www.adrc.asia/ E-mail: sarequest@adrc.asia FAX: +81-78-262-5546, TEL: +81-78-262-5540

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#### 4. Using Sentinel Asia Operation System, OPTEMIS

Sentinel Asia launched a new operation system, OPTEMIS. Please refer to the website on how tocreateanaccountforOPTEMIS.<a href="https://sentinel-asia.org/e-learning/Emergency">https://sentinel-asia.org/e-learning/Emergency</a> Observation Request.html

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