

**** March 2022 News from Sentinel Asia Project Office ****

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Topics:

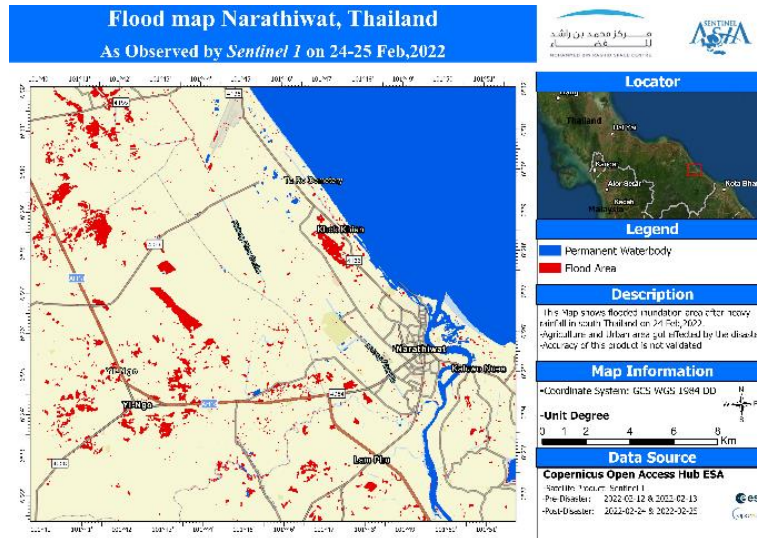
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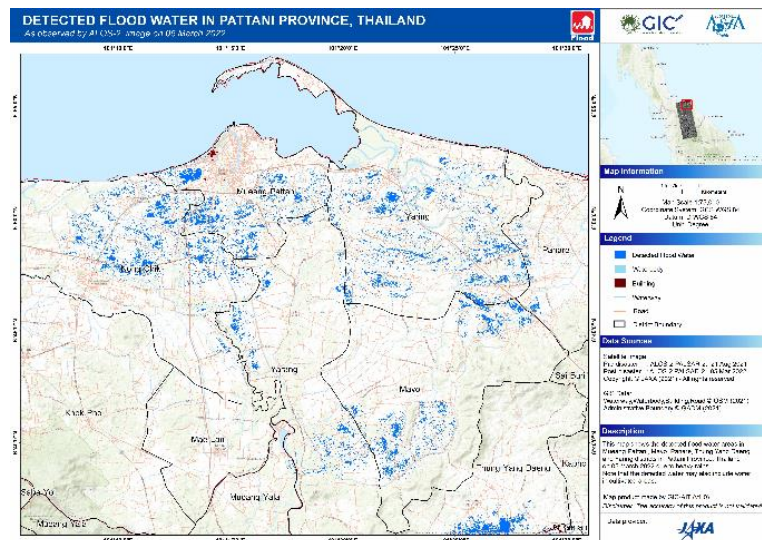
1. [News] Emergency Observation of Disasters
(1) Flood in Thailand on 24 February, 2022 (GLIDE Number FL-2022-000180-THA)
Heavy rain over Malay Peninsula in late February brought flooding in southern Thailand. According to ReliefWeb, 12,129 households were affected. The Thaiger reported that a bridge in Narathiwat Province collapsed and six people were killed.
(<https://reliefweb.int/report/thailand/thailand-flooding-southern-region-25-feb-2022>,
<https://thethaiger.com/news/national/southern-thailand-flooding-causes-bridge-collapse-6-people-reported-dead>)

Geo-Informatics and Space Technology Development Agency (GISTDA) made an Emergency Observation Request (EOR) to Sentinel Asia on 3 March. Among Data Provider Nodes (DPNs), the Japan Aerospace Exploration Agency (JAXA) and the National Applied Research Laboratories (NARL) provided data. Among Data Analysis Nodes (DANs), the Mohammed Bin Rashid Space Centre (MBRSC), the Earth Observatory of Singapore (EOS), and the Asian Institute of Technology (AIT) provided their VAPs. Information on the latest response by Sentinel Asia is available at the following link:

<https://sentinel-asia.org/EO/2022/article20220224TH.html>



Value-Added Product by MBRSC



Value-Added Product by AIT

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2. [Interview] Mr. Sadhu Zukhruf Janottama, Mr. Keith Paolo Landicho, and Mr. Mohammad Fadli (AHA Centre)

The ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre) is one of the key players in the Sentinel Asia community. Since its establishment in 2011, the AHA Centre has been engaged in monitoring, preparedness, and response related to disasters in the ASEAN Region. While the AHA Centre has been supporting Sentinel Asia with its extensive network and distinguished expertise as an international organization, recently, its support for and partnership with Sentinel Asia has been strengthened further.

The Sentinel Asia secretariat interviewed AHA Centre staff members to introduce their activities reflecting the centre's dedicated support for the ASEAN region through its partnership with Sentinel Asia.



Left to Right: Mr. Sadhu Zukhruf Janottama, Disaster Monitoring and Analysis Officer, AHA Centre; Mr. Keith Paolo Landicho, Disaster Monitoring and Analysis Officer, AHA Centre; Mr. Mohammad Fadli, Pacific Disaster Center, AHA Centre Liaison

Sentinel Asia Secretariat:

The AHA Centre lists (1) Disaster Monitoring, (2) Preparedness and Response, and (3) Capacity Building as its activities. Including these points, could you explain your role and mission in ASEAN?

Mr. Janottama:

One of the core strategies and pillars that translate the spirit of One ASEAN, One Response into concrete actions is to perform Risk Identification, Early Warning, and Monitoring. Through these activities, the AHA Centre aims to reduce loss of life and damage to property from disasters caused by natural hazards through the identification of risks prior to impacts and by increasing warning time.

The AHA Centre works closely with the national disaster management organizations (NDMOs) of all ten ASEAN member states in monitoring and sharing information about hazards and disasters in the region. The AHA Centre also conducts hazard and disaster monitoring from various verified sources such as hydrometeorological and geological agencies of the ten ASEAN Member States. Information management and dissemination, including information from Sentinel Asia, may help strengthen the coordination efforts of assisting parties when responding to potential as well as actual disasters. The AHA Centre believes that accurate information, shared in a timely manner, might help save lives during critical times.

The AHA Centre, particularly the Disaster Monitoring and Analysis unit, use two primary tools/platforms to perform 24/7 monitoring of hazards and disasters in the ASEAN region, namely the ASEAN Disaster Monitoring and Response System (DMRS) and the ASEAN

Disaster Information Network (ADINet). The DMRS is a tool that shows real-time information of the hazards in the region as they happen, as well as hydrometeorological data, such as wind direction and speed, clouds, sea temperature, etc. The maps can be overlaid with additional information such as population density data, location of critical infrastructures, and other spatial data that can aid decision-making during emergency response operations. The ADINet is a repository of information concerning hazards and disasters that have happened in the region. The platform is open to the public. The AHA Centre verifies and validates any submitted information to ensure the accuracy of the data. ADINet has been recording disaster information in the region since 2012.

Mr. Fadli:

DMRS is a derivative product from “DisasterAWARE”, which is operated to monitor not only regionally but also globally and consists of multiple layers that include all the required information for disaster monitoring.

Mr. Janottama:

Added to the second item of the first question, as a part of its preparedness and response efforts, the AHA Centre develops various tools and guidance to accelerate the mobilization of resources between ASEAN member states and its partners in times of disaster.

For the third item of the first question, about capacity building, the AHA Centre supports the national disaster management authorities across ASEAN member states through capacity building to build a disaster-resilient region. There are two signature courses in the ASEAN region. One is the ASEAN Emergency Response and Assessment Team (ASEAN-ERAT), and the other is the AHA Centre Executive (ACE) Programme that is designed to prepare future leaders of disaster management in ASEAN.

Sentinel Asia Secretariat:

How do the DMRS and Sentinel Asia contribute to each other?

Mr. Fadli:

We process some of the information gathered from the main system, “DisasterAWARE”. The Pacific Disaster Center (PDC) collects and includes information from various sources from other organizations such as Sentinel Asia, the UN, etc. where they publish reports. For any disasters or hazards that happen globally, our team is standing by to make inputs to the system so that we can distribute information to the public soon, and then local governments and organizations can refer to and use the data for disaster responses.

Sentinel Asia Secretariat:

The Sentinel Asia Secretariat deeply appreciates your contribution to past Emergency Observation Requests (EORs) that you supported. Could you tell us about the AHA Centre's role in case of EORs and list some EORs important to you or where Sentinel Asia could significantly contribute?

Mr. Janottama:

First of all, speaking of EORs, the AHA Centre is working as the coordination centre among ten ASEAN member states. Concerning EORs to Sentinel Asia, the AHA Centre not only works as a requester, but also supports other users from the ten ASEAN member states for EORs to Sentinel Asia. The AHA Centre, in close coordination with national disaster management organisations (NDMO), also checks and monitors the EORs to Sentinel Asia from the other departments or ministries in the ten ASEAN member states to avoid duplication of the EORs.

I would cite the following EORs as particularly important ones to the AHA Centre in recent times. What is significant in these EORs, in my view, is that these EORs are made by the AHA Centre itself and the products and information provided by Sentinel Asia were used in AHA Centre internal meetings/analyses, as well as shared with the 10 ASEAN member states.

1. [Flooding in Myanmar, 27 July 2021](#)
2. [Typhoon GONI in the Philippines, 1 November 2020](#)
3. [Flooding in Cambodia, 17 October 2020](#)
4. [Flood in Aceh, Indonesia, 8 May 2020](#)
5. [Flood in Jakarta, Banten, and West Java Province, Indonesia, 1 January 2020](#)

Mr. Landicho:

Among the five EORs that Mr. Janottama mentioned, personally, I would cite the case of Typhoon GONI as the best. Back in November 2020, Typhoon GONI hit the Philippines and I myself made an EOR for the Philippines. This EOR stems from lessons learned during an earlier EOR made by myself as well less than a month before Typhoon GONI. In October 2020, Tropical Cyclones LINFA and NANGKA combined with the effects of the Inter-Tropical Convergence Zone (ITCZ) affected Viet Nam and as mentioned, we used data from the Data Analysis Nodes (DANs) and Data Provider Nodes (DPNs) of Sentinel Asia in our information product—Situation update, to aid our emergency response operations back in October (for Viet Nam) and November (for the Philippines). It was the first time for the AHA Centre to respond to disasters in the region during a pandemic and it was advantageous to identify which areas were accessible and which areas were most impacted in such a flood situation using the data from the Sentinel Asia network. We were able to identify priority areas which was crucial for the response. That is one of the best practical cases for us.

Sentinel Asia Secretariat:

The AHA Centre issues “Situation Update” and “Flash Update” for several types of disasters. Could you introduce these?

Mr. Janottama:

Situation Update of the AHA Centre is a disaster information product which specifically provides information related to a disaster that being responded to by the AHA Centre. You can see the details at <https://ahacentre.org/situation-updates/>.

Flash Update is a disaster information product which provides immediate brief information about an emerging and/or actual significant disaster in the ASEAN region that may be the impetus of a significant impact and/or potential humanitarian operations which does not yet require our response at the time. Most first updates come from the ASEAN member states, and in our experience, data from Sentinel Asia is used for updates. You can see the details at <https://ahacentre.org/flash-updates/>

Sentinel Asia Secretariat:

Were there any cases where you introduced Sentinel Asia EOR statuses or their VAPs in “Situation Update” or “Flash Update” and which resulted in contact/feedback from outside or actual support?

Mr. Landicho:

The AHA Centre mostly used the Sentinel Asia EOR products in the Situation Update. Now, speaking of cases which resulted in actual support, as I mentioned earlier, I would cite the case of Typhoon GONI in 2020. The super typhoon affected the Philippines and Viet Nam. In the Situation Update in 2020 for GONI, processed data—detected flooding by the DANs of the Sentinel Asia network—were used in the information products. The series of Situation Updates were circulated within the AHA Centre’s network, the governing board (GB) of the AHA Centre - ASEAN Committee on Disaster Management, ASEAN Secretariat and partner non-governmental organizations (NGOs), international non-governmental organizations (INGOs), civil society organizations (CSOs), etc. As mentioned in the [Situation Update](#), Sentinel Asia and Earth Observatory Singapore (EOS) ARIA-SG provided several raw and analysed satellite images that can support the ongoing emergency response. What is particularly significant is that, since this was one of AHA’s first responses amidst the COVID-19 pandemic in which situation monitoring and relief and rescue activities from the ground were severely challenged, the information provided by Sentinel Asia and its dissemination via Situation Update warranted a pandemic-adjusted response. To be specific, we have managed to identify which areas were accessible and which areas were most

impacted in such a flood situation. Thus, we were able to provide relief goods easily and consider which areas should be more prioritized. I think that is one instance where it's really advantageous to have this partnership with Sentinel Asia.

Sentinel Asia Secretariat:

In terms of the AHA Centre's role in raising awareness of Sentinel Asia to the public, we also appreciate your introduction of Sentinel Asia activities in "ARMOR" issued by the AHA Centre in March 2019, focusing on the effectiveness and significance of Sentinel Asia's space-based disaster support. Could you explain the purpose of this and its significance for ASEAN disaster management organizations, including the AHA Centre? Also, could you share with us the outcome of this ARMOR, if any?

Mr. Janottama:

The ASEAN Risk Monitor and Disaster Management Review (ARMOR) in 2019 aimed at consolidating knowledge related to risk monitoring and disaster management within the ASEAN region, and seeking to provide a mechanism for the sharing of best practices and the latest research and analysis. At the same time, the ARMOR was to showcase innovations and inspire disaster managers and researchers across the region and the world, or what we called bridging science to decision-making. And Sentinel Asia was introduced in Chapter 10 on "Utilization of Space-based Information for Supporting Emergency Response and Recovery", based on actual emergency response experiences in which space-based information was utilized alongside direct field observation to inform operational decision making. This ARMOR underlined the benefit of Sentinel Asia for the ASEAN region and recommended that all national disaster management organisations (NDMOs) of ASEAN member states be exposed to the Sentinel Asia platform. In fact, as the primary target of the ARMOR is the NDMOs of the ten ASEAN member states, they are being effectively exposed to the works and information of Sentinel Asia. This can be helpful for the ten ASEAN member states, as well as the AHA Centre to have smooth and good coordination with Sentinel Asia.

Sentinel Asia Secretariat:

In recent Sentinel Asia EORs, the AHA Centre is recognized as a key partner in ASEAN, especially in the "Standard Operating Procedures (SOPs) for Emergency Observation Requests", one established in Myanmar last year, and two others in Cambodia and Lao PDR this year, and you are recognized expressly as a pre-defined active body of EORs. What does the AHA Centre think about this? How do you expect to make disaster management support more efficient through these SOPs?

Mr. Landicho:

The Standard Operating Procedures (SOP) for Emergency Observation Requests provides us a clearer role and task to support the national agencies / ASEAN member states. This can allow us to support the ten ASEAN member states especially when they are busy to conduct Emergency Response Operations. This is also in line with the primary mandate of the AHA Centre as a coordinating agency to support the ten ASEAN member states. It will also be advantageous to build on these SOPs for EORs and embed them in the AHA Centre's guidelines like the EOR Guidelines or DMA guidelines. Seeing the speed and scale of the Sentinel Asia network's work, we feel positive about building on these relationships especially for areas in Southeast Asia because there tends to be potential underreporting of disasters.

Sentinel Asia Secretariat:

As a cooperative effort between Sentinel Asia and the AHA Centre, upon invitation from the AHA Centre, Sentinel Asia participated in "the AHA Centre Executive (ACE) Programme" organized by the AHA Centre. First, could you tell our readers a little bit about the ACE Programme?

Mr. Janottama:

The AHA Centre Executive (ACE) Programme is designed to prepare future leaders of disaster management in ASEAN. I think the ACE Programme is by far the most intensive disaster management training programme in the region. Through cooperation with the Government of Japan, the ACE Programme aims to enhance the capacity of ASEAN member states' disaster managers through the exchange of knowledge and skills amongst them and with other disaster management experts in the region as well as outside the region.

Sentinel Asia Secretariat:

In the ACE Programme's 7th batch last year, a special joint session was organized, led by Prof. Mizan Bisri from Kobe University, through cooperation among Sentinel Asia's volunteer Joint Project Team members based in Japan. Young professionals and future leaders of disaster management authorities in ASEAN countries learned about the application of satellite data for disaster management in this area. Could you tell us the significance and outcome of this joint session for the AHA Centre? And if you have any feedback from the participants or reports on the session results, could you tell us about them?

Mr. Landicho:

From my point of view, the importance of the joint session with Sentinel Asia in the ACE

programme is to have a good foundation of the theoretical knowledge, especially for those who are still learning, and show the cooperation between Sentinel Asia and the AHA Centre as a practical example.

Mr. Janottama:

In fact, the DMA Officers of the AHA Centre also joined this session as participants together with the representatives of the ten ASEAN member states. This session was beneficial for the AHA Centre and NDMOs to understand the work and role of Sentinel Asia, including how we can connect our work and projects to Sentinel Asia. This session also provided useful knowledge and information for the participants, as reflected by the summary of the feedback from the participants below. Thanks to this Sentinel Asia session, they have also learned to relate the session materials that are relevant to what they are doing in the office. More importantly, they feel that the issues raised by the session connect to activities, projects, programmes, and policies in their country.

I think the significance and outcome of this joint session for the AHA Centre would be our exposure to Sentinel Asia's activities and inspiration for future collaboration to raise awareness. We will need to discuss internally first, but we hope to propose projects for the future.

Sentinel Asia Secretariat:

Could you tell us how the AHA Centre will contribute to Sentinel Asia in the future, considering the above points?

Mr. Fadli:

The ADINet might be useful for DAN to make their data more precise, so I hope Sentinel members take a look of it. It is available for the public at <https://adinet.ahacentre.org/>.

Mr. Landicho:

I think the AHA Centre can contribute to Sentinel Asia in the future by continuing to make emergency observation requests for ASEAN member states as well as providing feedback, and maintaining the partnership between us. The AHA Centre is also at a good vantage point in coordinating not just response and relief efforts but also monitoring efforts in a regional scale. Therefore, our partnership with Sentinel Asia not only strengthens regional preparedness but also the international community of translating the spirit of One ASEAN One Response into action.

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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 [https://sentinel-asia.org/e-learning/Emergency Observation Request.html](https://sentinel-asia.org/e-learning/Emergency_Observation_Request.html).

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 to create an account for OPTEMIS. [https://sentinel-asia.org/e-learning/Emergency Observation Request.html](https://sentinel-asia.org/e-learning/Emergency_Observation_Request.html)

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