

17 December 2021





TROPICAL CYCLONE RAI-21

PRELIMINARY SATELLITE-DERIVED STANDING WATERS ANALYSIS



Region VIII (Eastern Visayas) and Region XIII (Caraga): Philippines

-  Status: Floods and affected area observed
-  Further action(s): Continue monitoring



PHILIPPINES



AOI 1-1: LIBJO MUNICIPALITY ,DINAGAT ISLAND, REGION XIII (CARAGA)

No floods observed

Legend

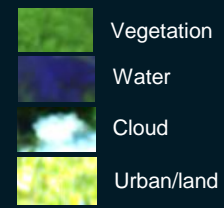
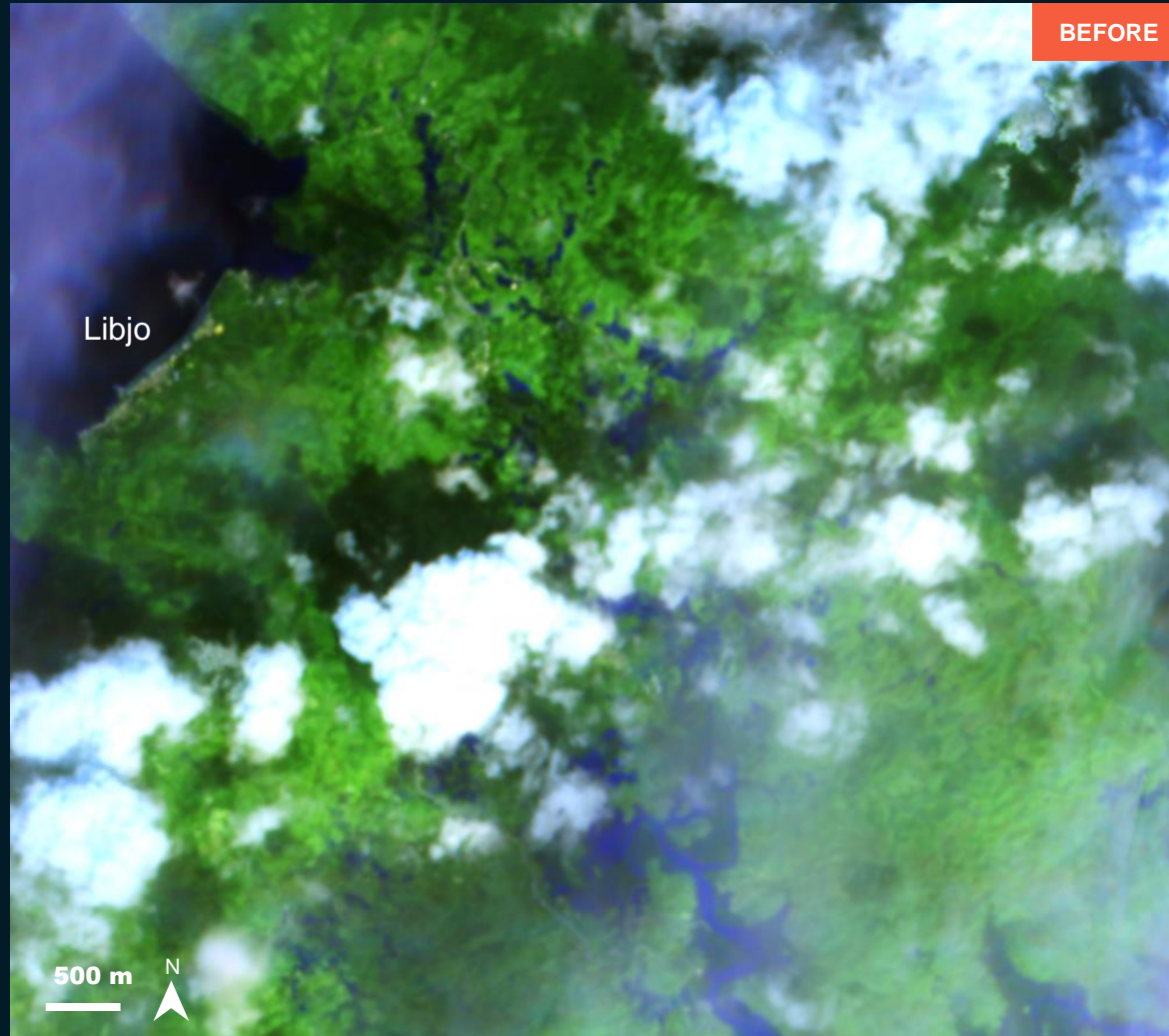


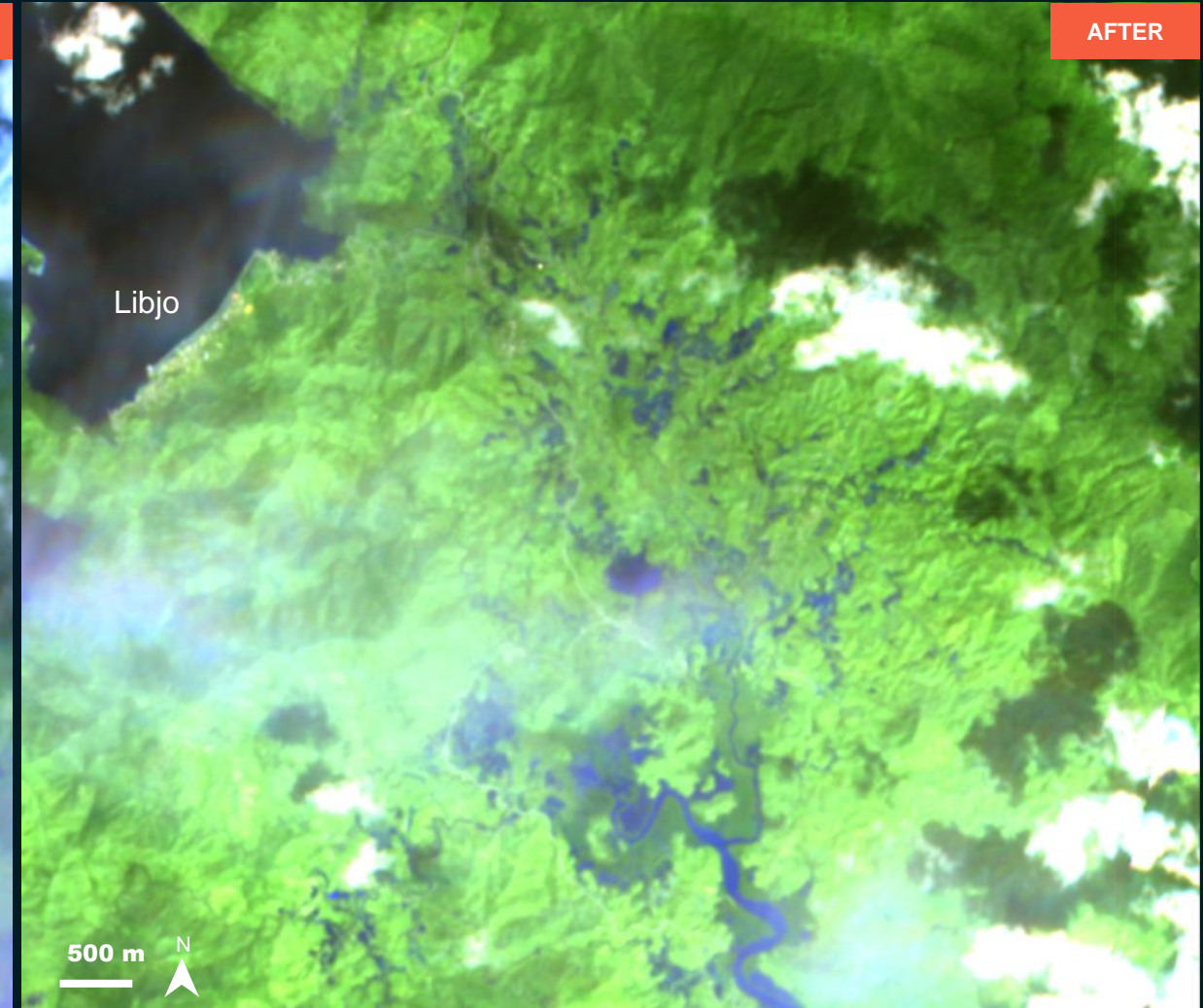
Image center:
10°10'35.7"N
125°33'49.7"E



Dinagat
Island



Sentinel-2 / 27 November 2021



Sentinel-2 / 17 December 2021

AOI 1-2: SOUTHERN PART OF DINAGAT ISLAND, REGION XIII (CARAGA)

Standing waters increase

Legend

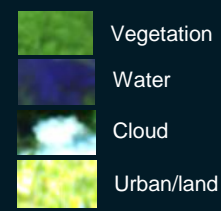


Image center:
125°39'31.415"E
9°55'28.185"N



Sentinel-2 / 12 December 2021



Sentinel-2 / 17 December 2021

AOI 2-1: SIARGAO ISLAND, REGION XIII (CARAGA)

Inundated areas

Legend

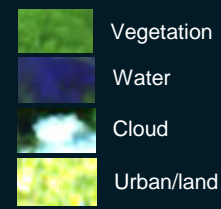
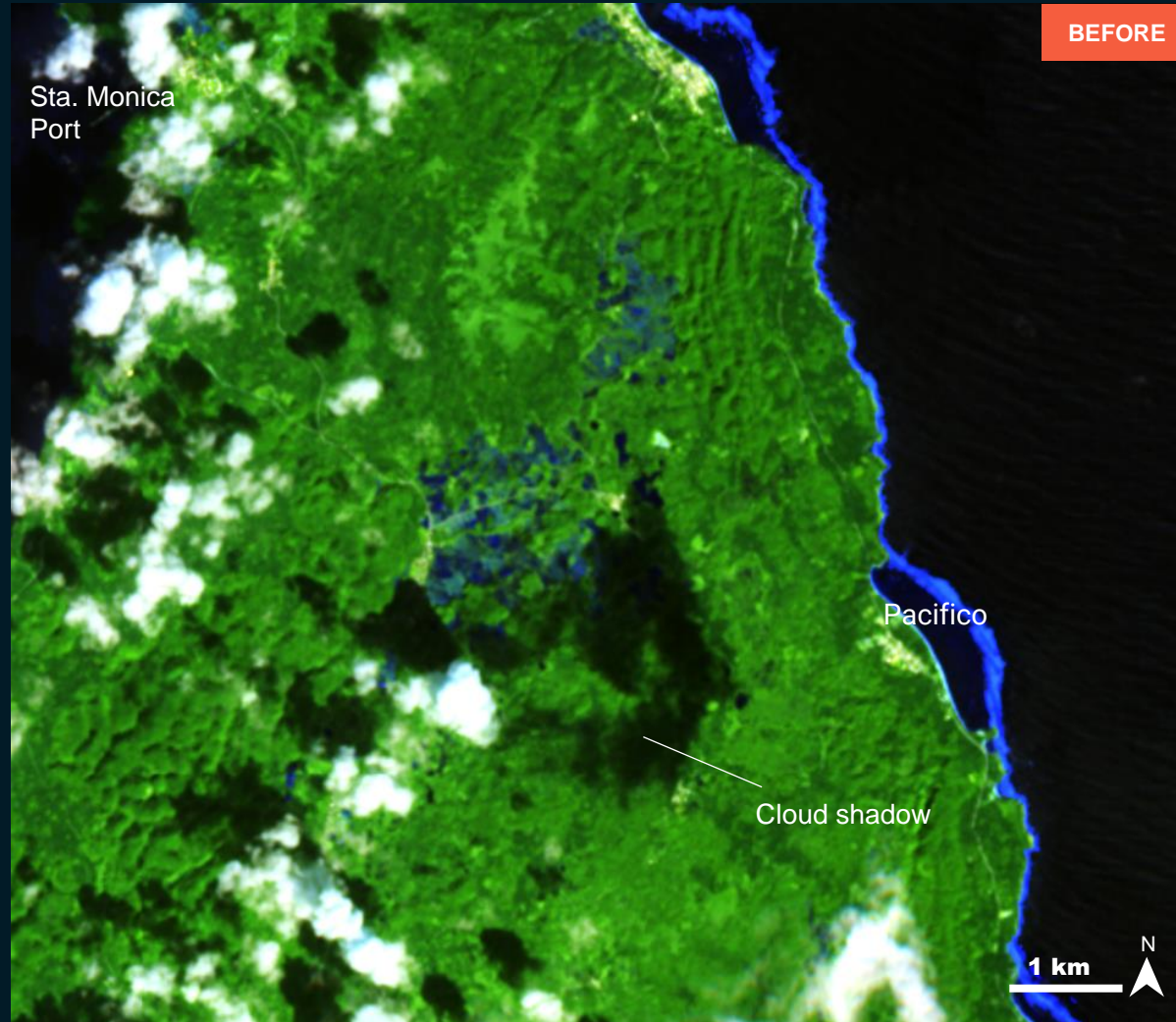
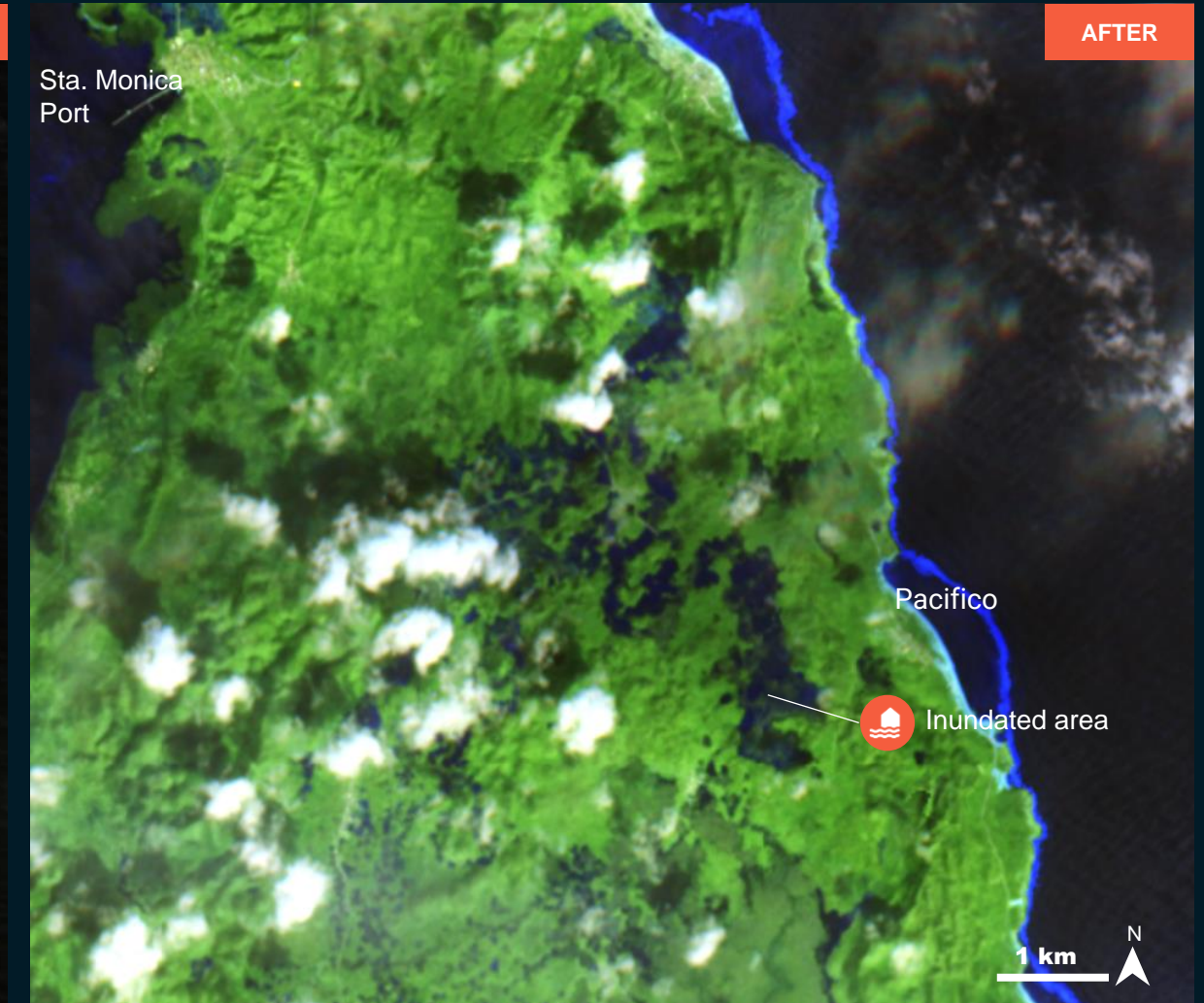


Image center:
010°01'25.1"N
126°03'38.6"E



Sentinel-2 / 12 December 2021



Sentinel-2 / 17 December 2021

AOI 2-2: SIARGAO ISLAND, REGION XIII (CARAGA)

Inundated areas

Legend

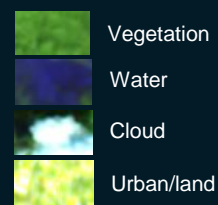
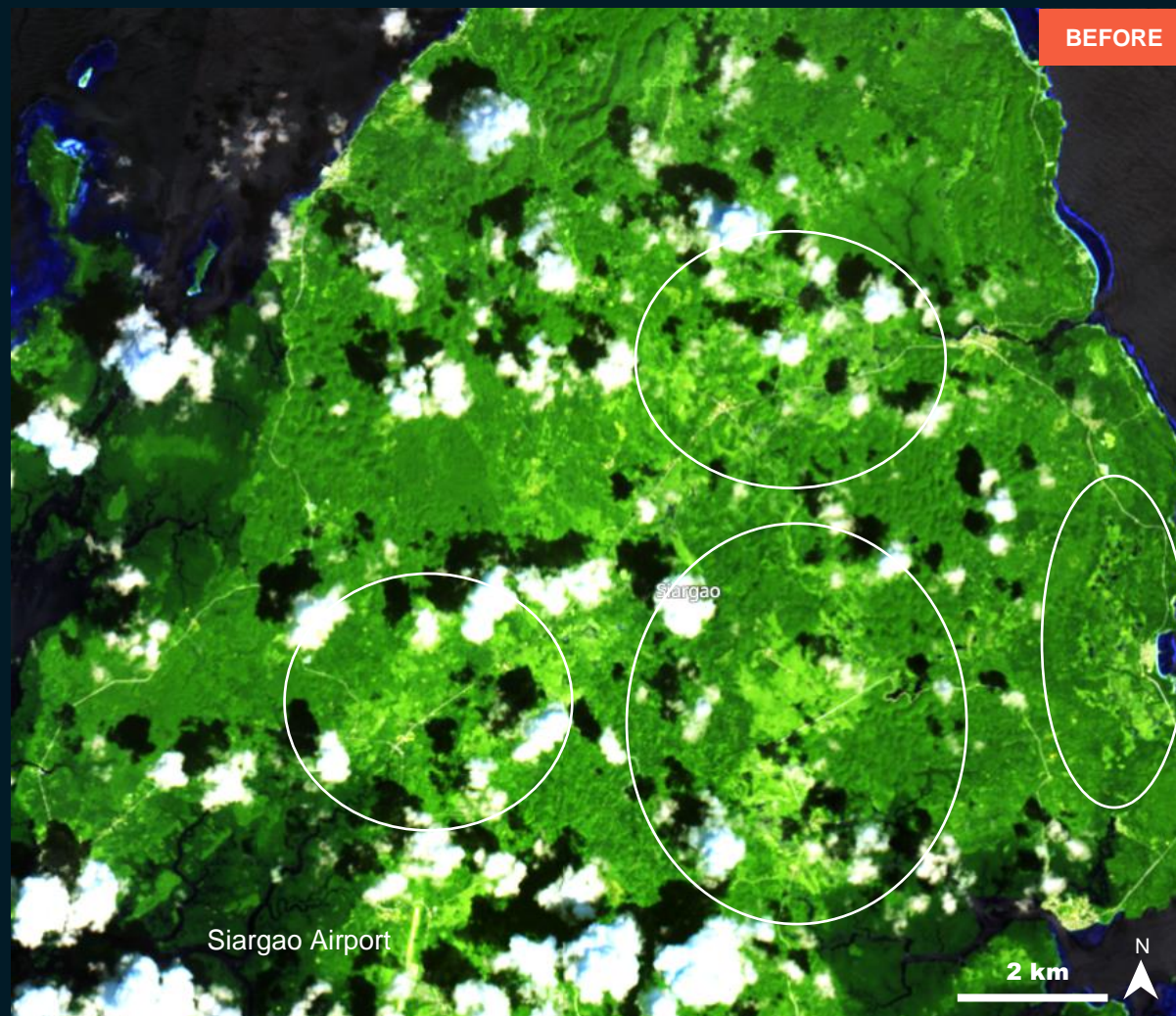
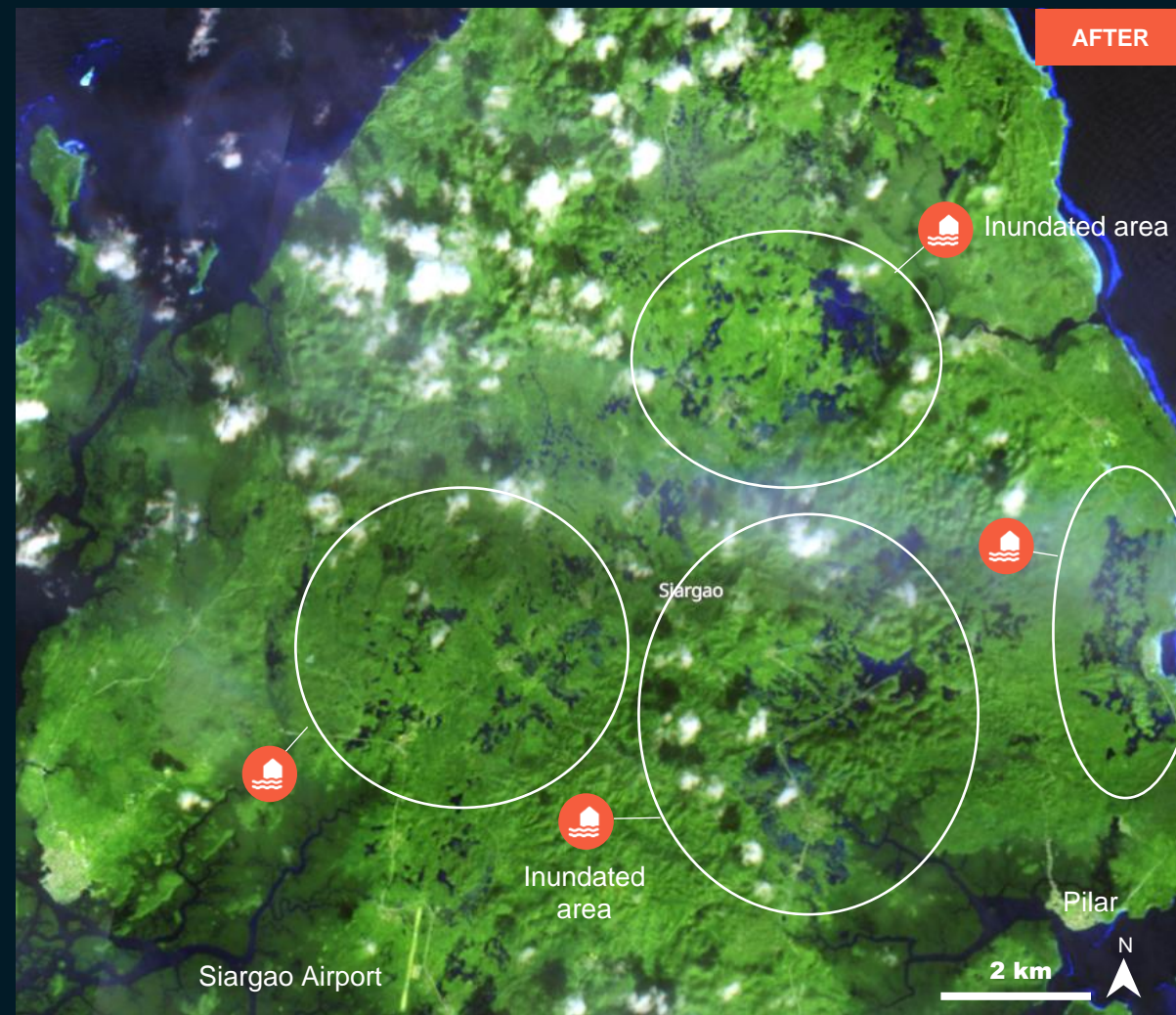


Image center:
009°54'30.2"N
126°02'44.1"E



Sentinel-2 / 18 October 2021



Sentinel-2 / 17 December 2021

AOI 2-3: SIARGAO ISLAND, REGION XIII (CARAGA)

Inundated areas observed near Siargao airport and surrounding

Legend

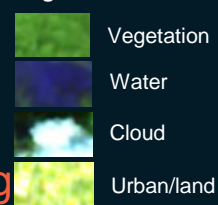
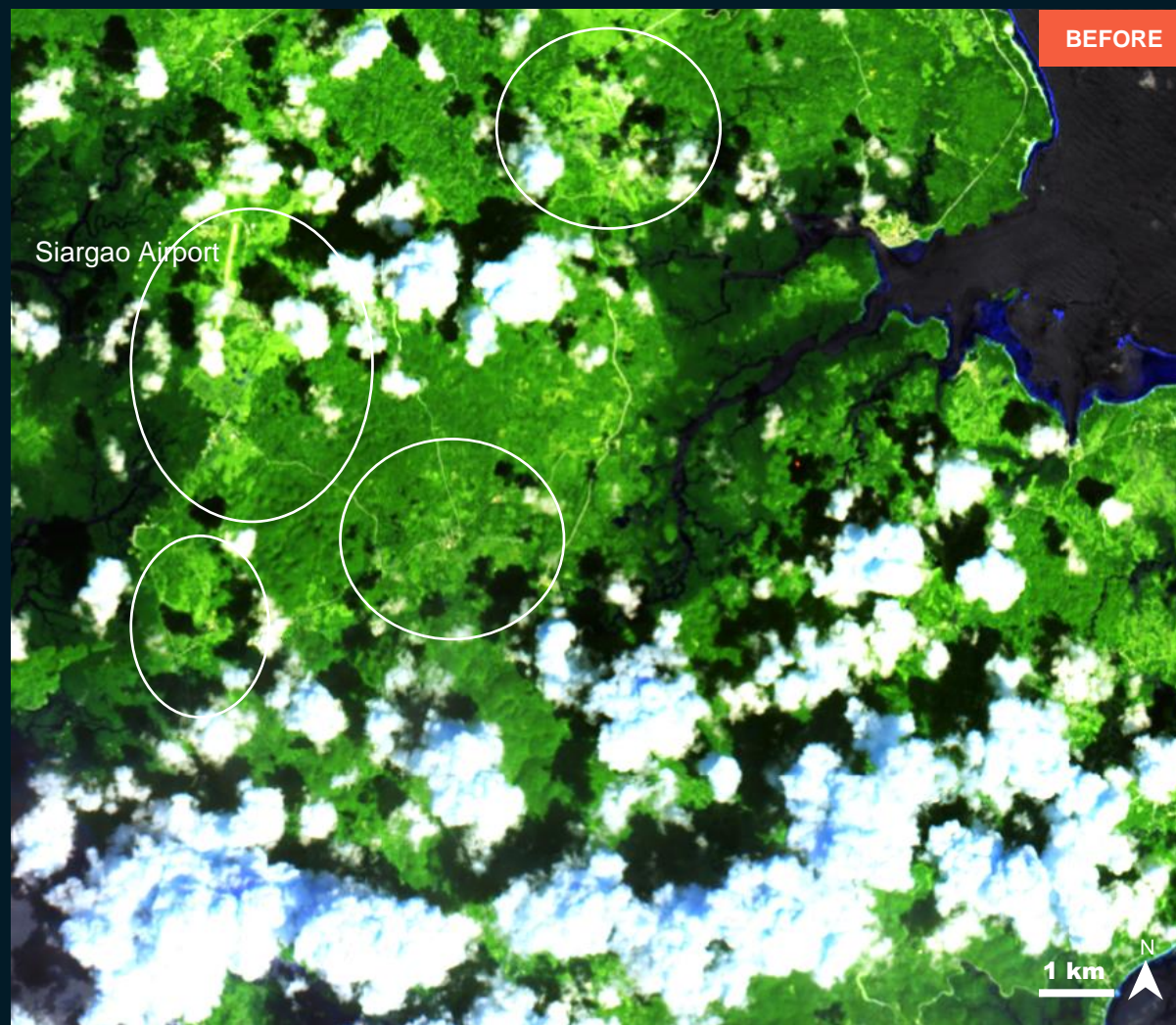
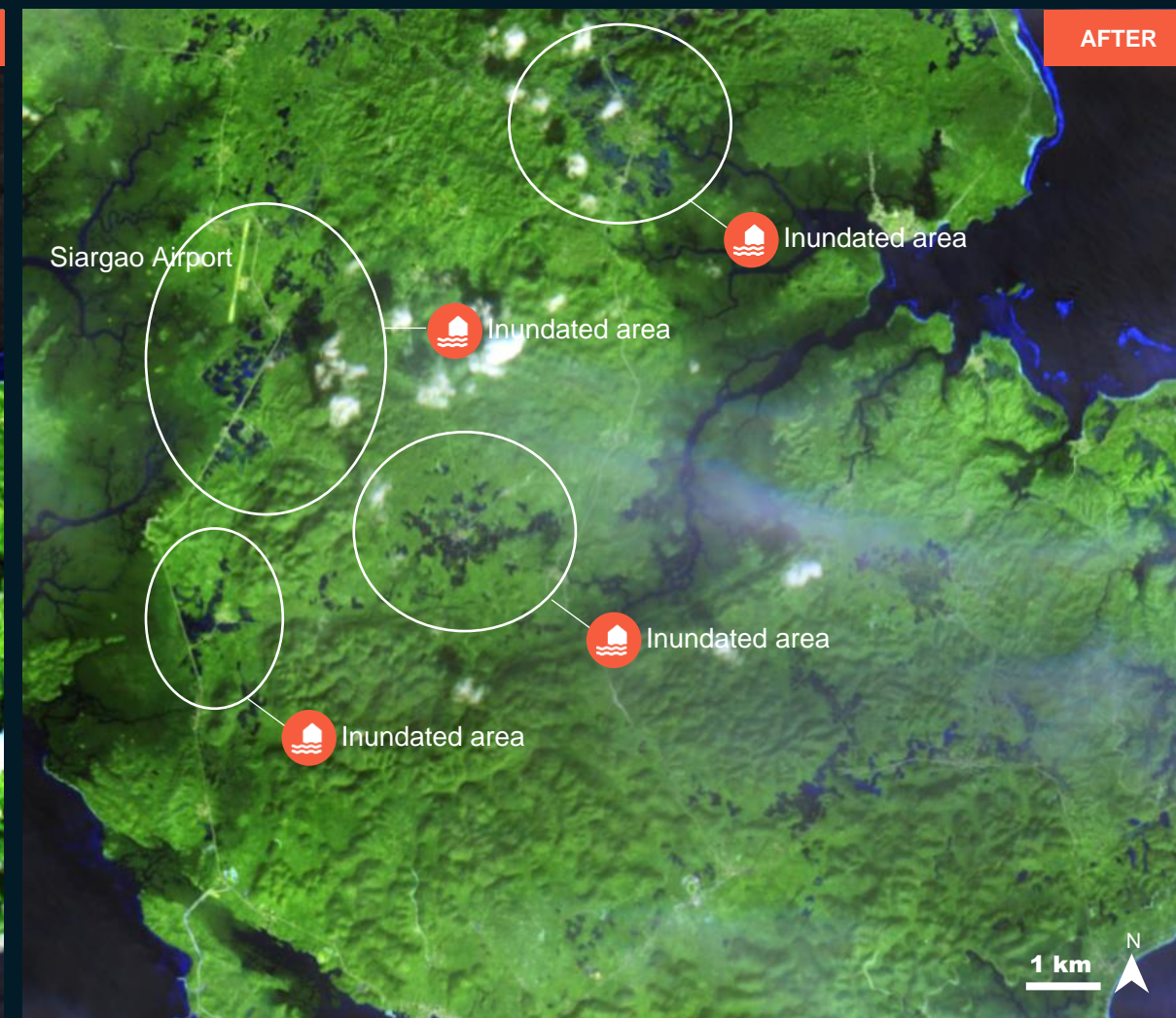


Image center:
009°49'04.6"N
126°03'10.2"E



Sentinel-2 / 18 October 2021



Sentinel-2 / 17 December 2021

AOI 2-4: SIARGAO ISLAND, REGION XIII (CARAGA)

Inundated areas

Legend

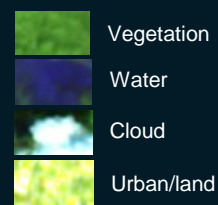
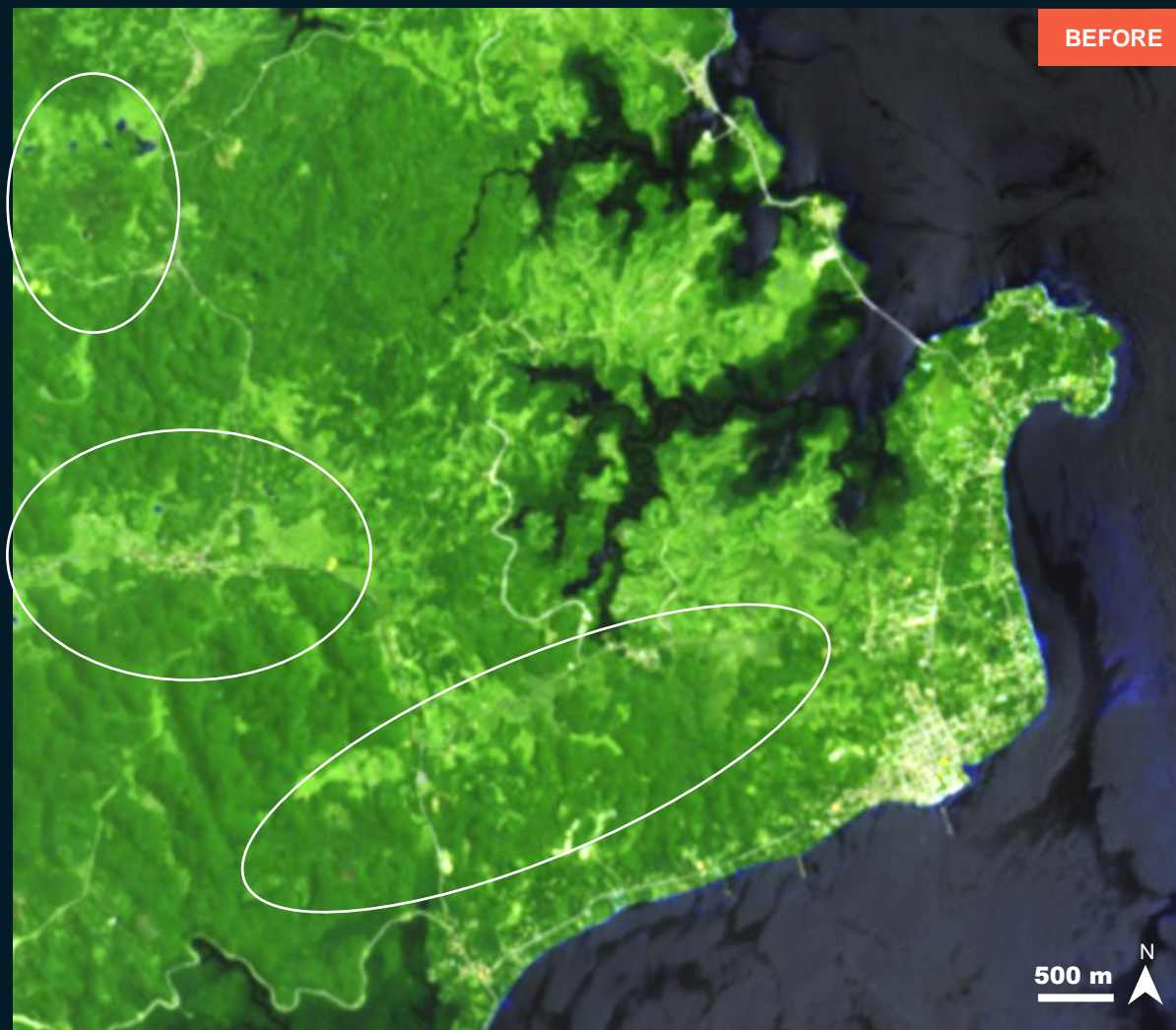


Image center:
009°47'47.1"N
126°08'30.9"E



Sentinel-2 / 30 July 2021



Sentinel-2 / 17 December 2021

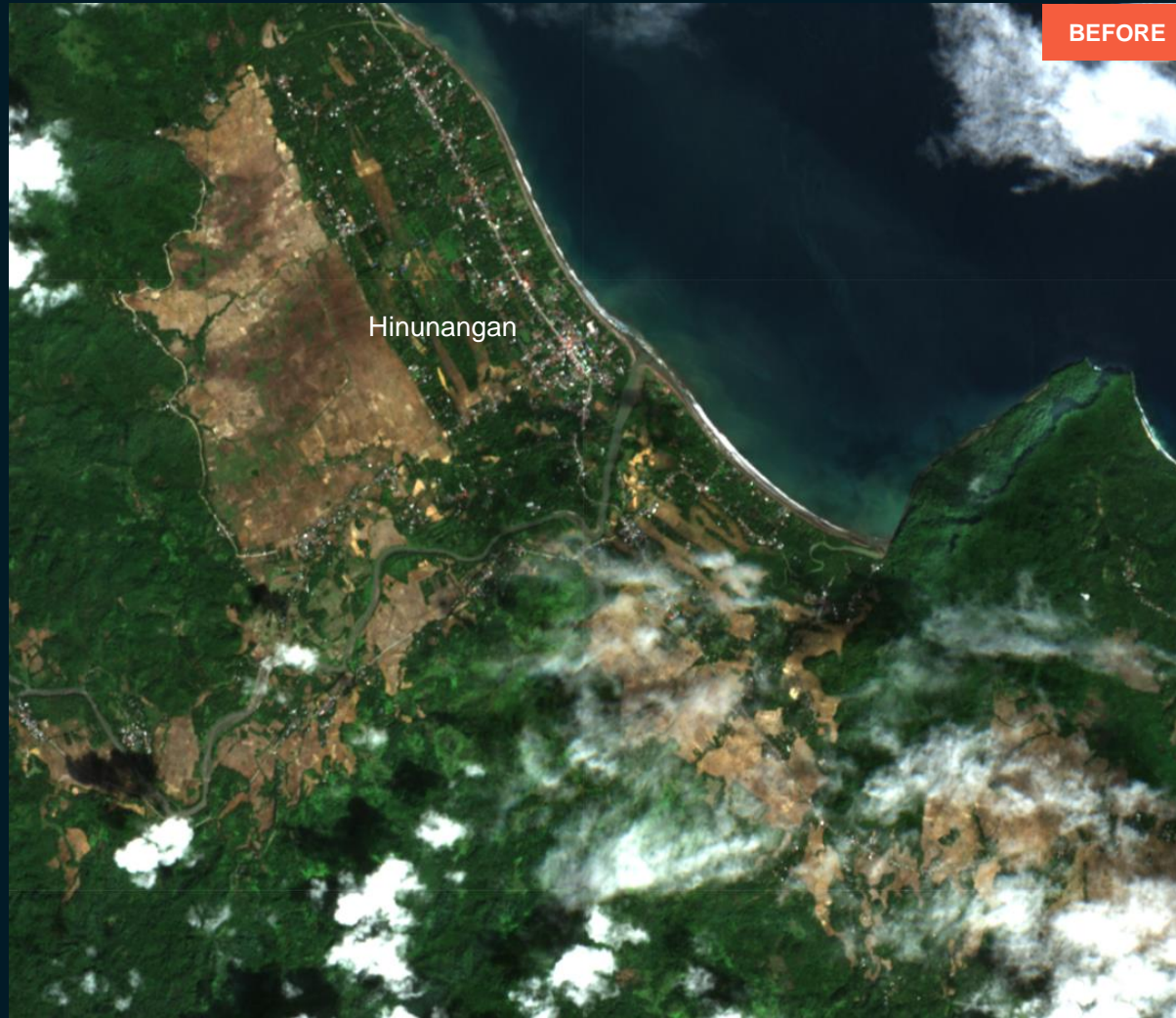
AOI 3-1: HINUNANGAN MUNICIPALITY, SOUTHERN LEYTE PROVINCE, REGION VIII (EASTERN VISAYAS)

No floods observed

Image center:
10°22'55.0"N
125°11'56.4"E



Southern Leyte
province



Sentinel-2 / 12 December 2021



Sentinel-2 / 17 December 2021

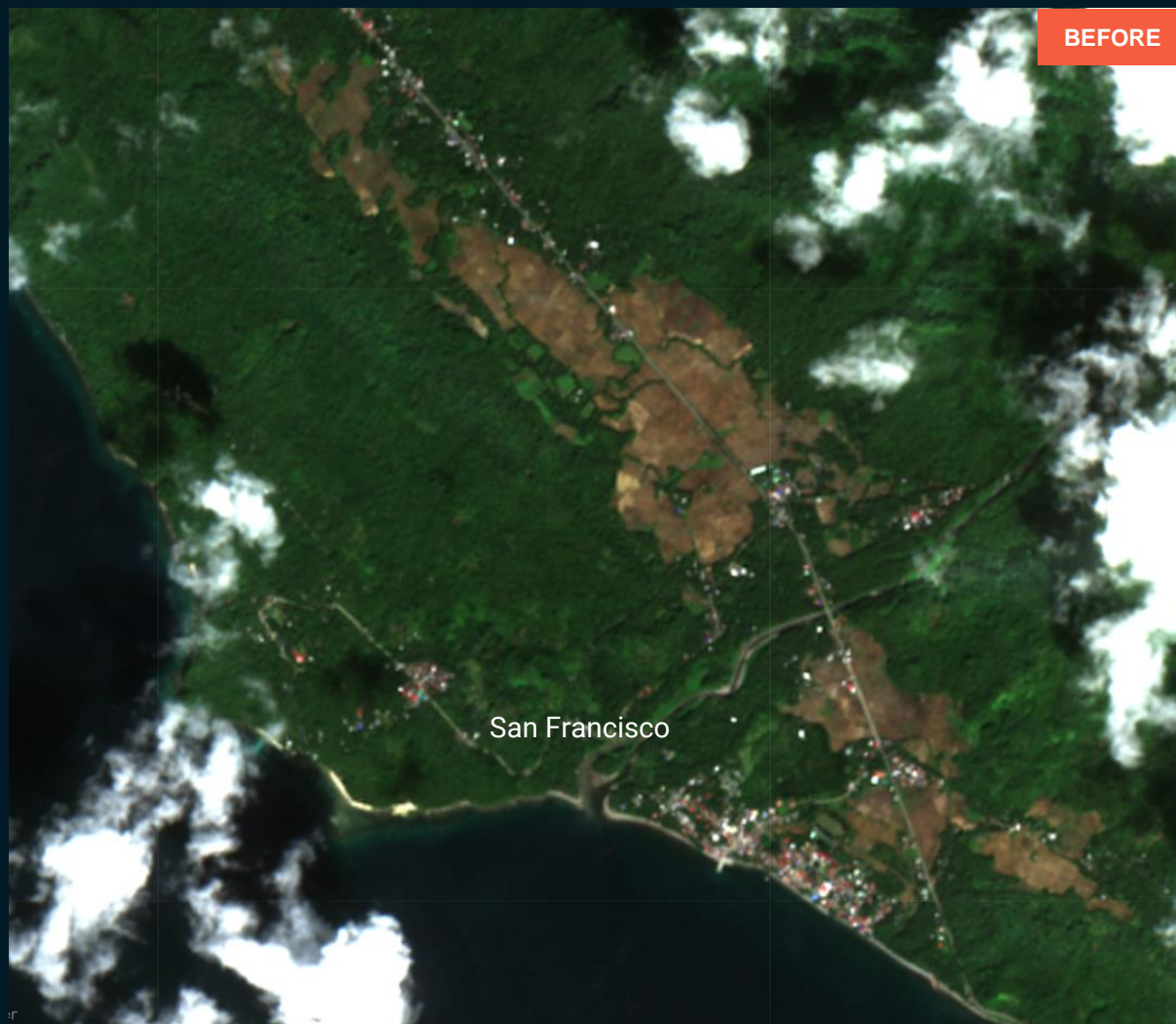
AOI 3-1: SAN FRANCISCO MUNICIPALITY, SOUTHERN LEYTE PROVINCE, REGION VIII (EASTERN VISAYAS)

No floods observed

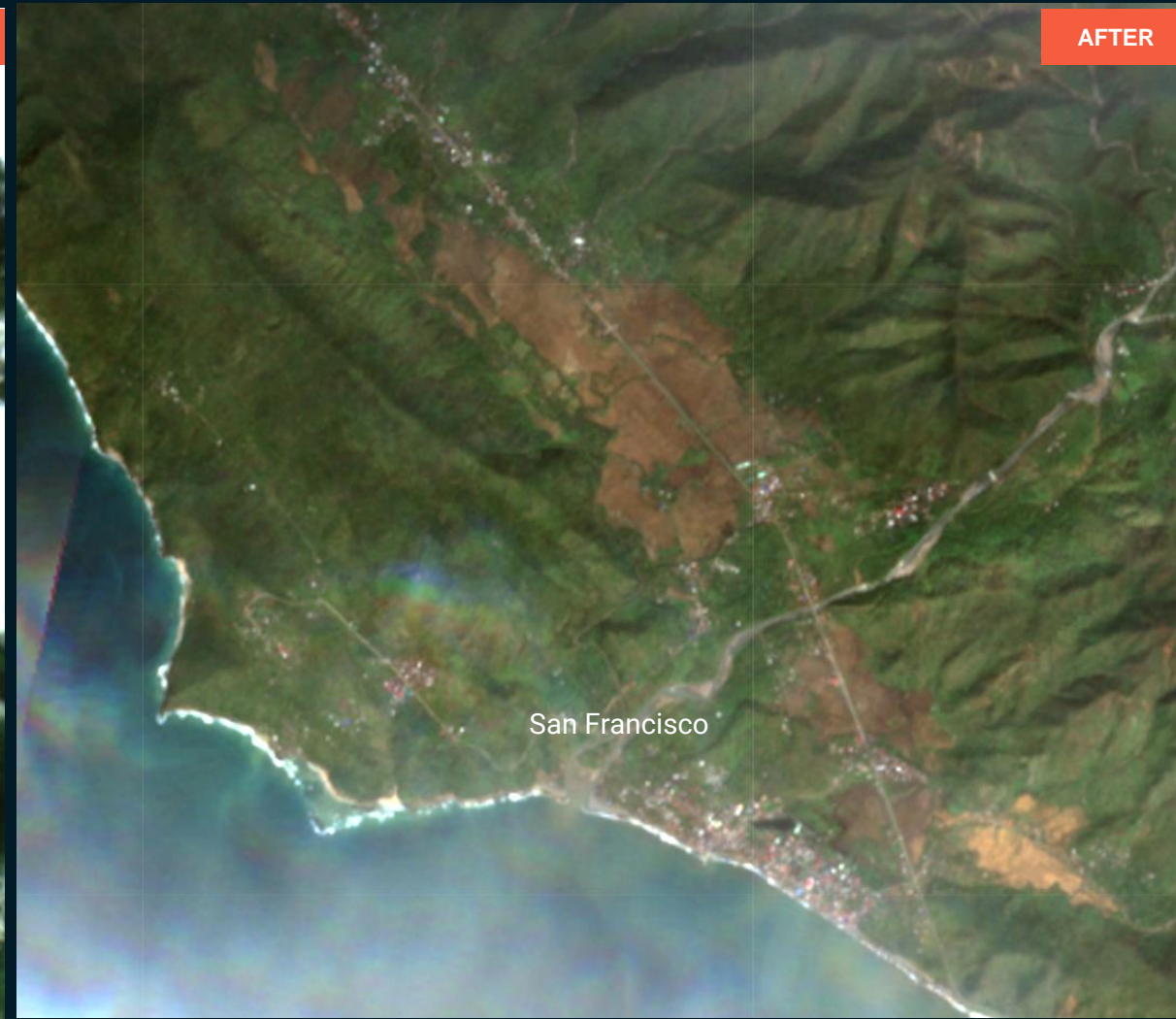
Image center:
10°04'04.3"N
125°09'06.8"E



Southern Leyte
province



Sentinel-2 / 12 December 2021

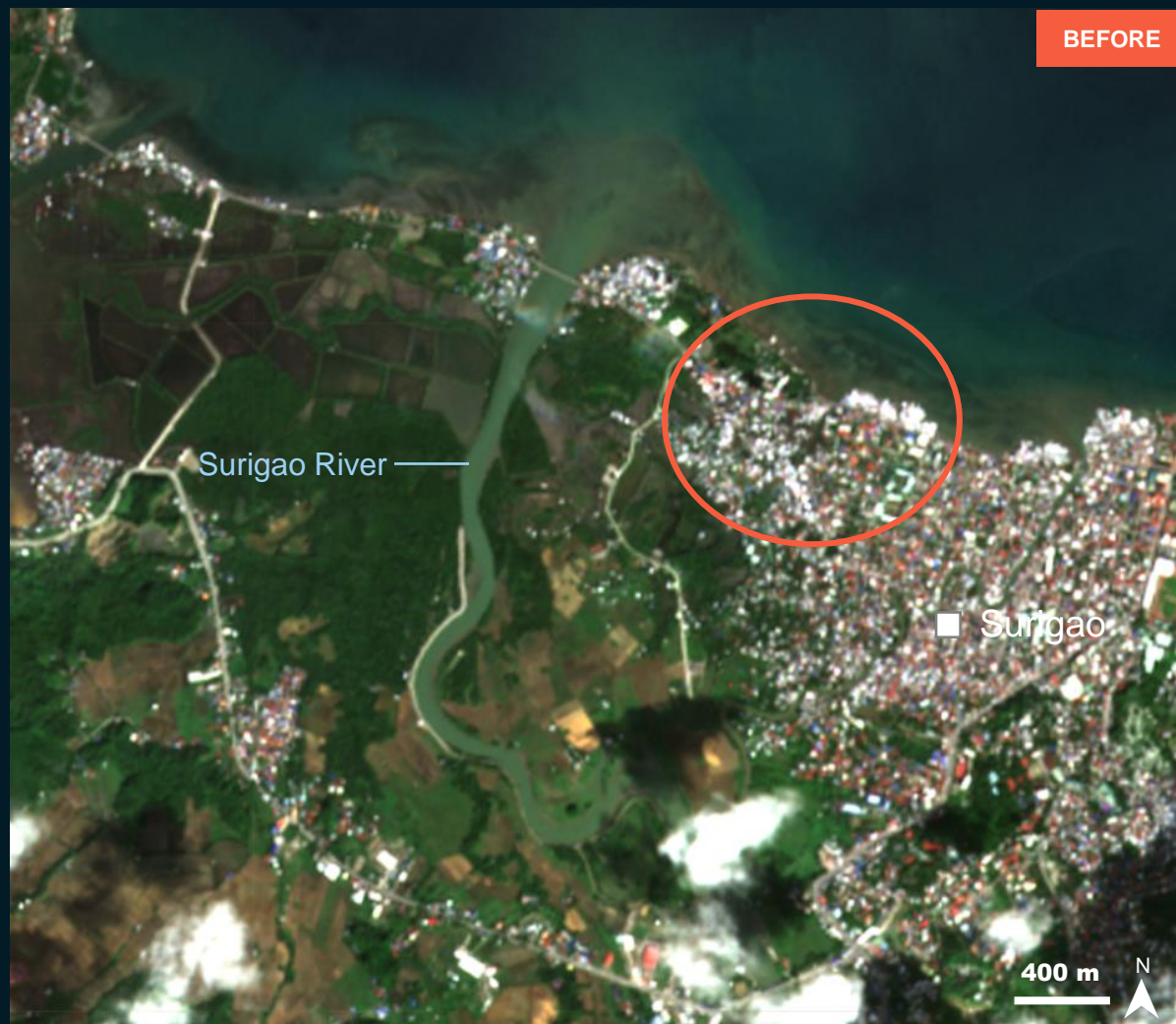


Sentinel-2 / 17 December 2021

AOI 4-1: SURIGAO CITY, SURIGAO DEL NORTE PROVINCE REGION XIII (CARAGA)

Floods in urban area and affected agricultural areas

Image center:
125°29'1.753"E
9°47'15.612"N



Sentinel-2 / 12 December 2021



Sentinel-2 / 17 December 2021

AOI 4-2: CLAVER MUNICIPALITY, SURIGAO DEL NORTE PROVINCE, REGION XIII (CARAGA)

Water level increase along the Daywan River near Claver municipality

Image center:
9°34'07.3"N
125°43'29.5"E



Sentinel-2 / 27 November 2021



Sentinel-2 / 17 December 2021

SUMMARY OF FINDINGS

- No major floods observed in Libjo Municipality, Dinagat Island, Region XIII (Caraga) as of 17 December 2021.
- Increase of standing waters level in Southern Part of Dinagat Island, Region XIII (Caraga) observed as of 17 December 2021.
- Large inundated areas in Siargao Island, Region XIII (Caraga) observed as of 17 December 2021.
- Standing waters in urban areas and affected agricultural area in Surigao City, Surigao Del Norte Province Region XIII (Caraga) observed as of 17 December 2021.
- Standing waters near Claver municipality, Surigao Del Norte Province, Region XIII (Caraga) observed as of 17 December 2021.
- No major floods observed in Hinunangan Municipality, Southern Leyte Province, Region VIII (Eastern Visayas) as of 17 December 2021.
- No major floods observed in San Francisco Municipality, Southern Leyte Province, Region VIII (Eastern Visayas) of 17 December 2021.

COPYRIGHTS AND SOURCES

Data sources:

(1) Satellite Image (Post-event)

Sentinel-2 / 17 Dec 2021 about 02:14 UTC

Resolution: 10 m

Copyright: Contains modified Copernicus Sentinel Data [2021]

Source: ESA / The Charter

(2) Satellite Image (Pre-event)

Sentinel-2 / 30 July, 18 Oct, 27 Nov and 12 Dec 2021

Resolution: 10 m

Copyright: Contains modified Copernicus Sentinel Data [2021]

Source: ESA

(3) Ancillary data

Administrative boundaries: National Mapping and Resource Information Authority (NAMRIA), Philippines Statistics Authority (PSA)

Analysis: United Nations Satellite Centre (UNOSAT)

Production: United Nations Satellite Centre (UNOSAT)



@UNOSAT



@UNITAR.unosat



UNOSAT, United Nations Institute for Training
and Research (UNITAR)
7 bis, Avenue de la Paix, CH-1202 Geneva 2,
Switzerland

T +41 22 917 4720
E unosat@unitar.org
www.unosat.org