

27 February 2023

PRELIMINARY SATELLITE- FLOOD ASSESSMENT REPORT



Vohipeno District, Madagascar

 Status: Flood water detection after tropical cyclone Freddy

 Further action(s): continue monitoring



MADAGASCAR

24 February 2023



VOHIPENO DISTRICT, VATOVAVY FITOVINANY REGION, MADAGASCAR

AOI 1: Maraokanjo Fokontany,
Ankarimbary Commune

AOI 2: Maromby Fokontany,
Vohipeno Commune

AOI 3: Vohipeno town

VOHIPENO

Sandrananla River

AOI 4: Onjatsy Fokontany,
Onjatsy Commune



Sentinel-2 image acquired on 24 February 2023
Image Center : 22°21'36.7"S 47°50'28.4"E

AOI 1: Maraokanjo Fokontany, Ankarimbary Commune, Vohipeno District

Increase of water level along the Sandrananta river and flooded agricultural fields

Image center:
22°18'49.3"S
47°49'20.5"E



Worldview2 / 5 Nov. 2022

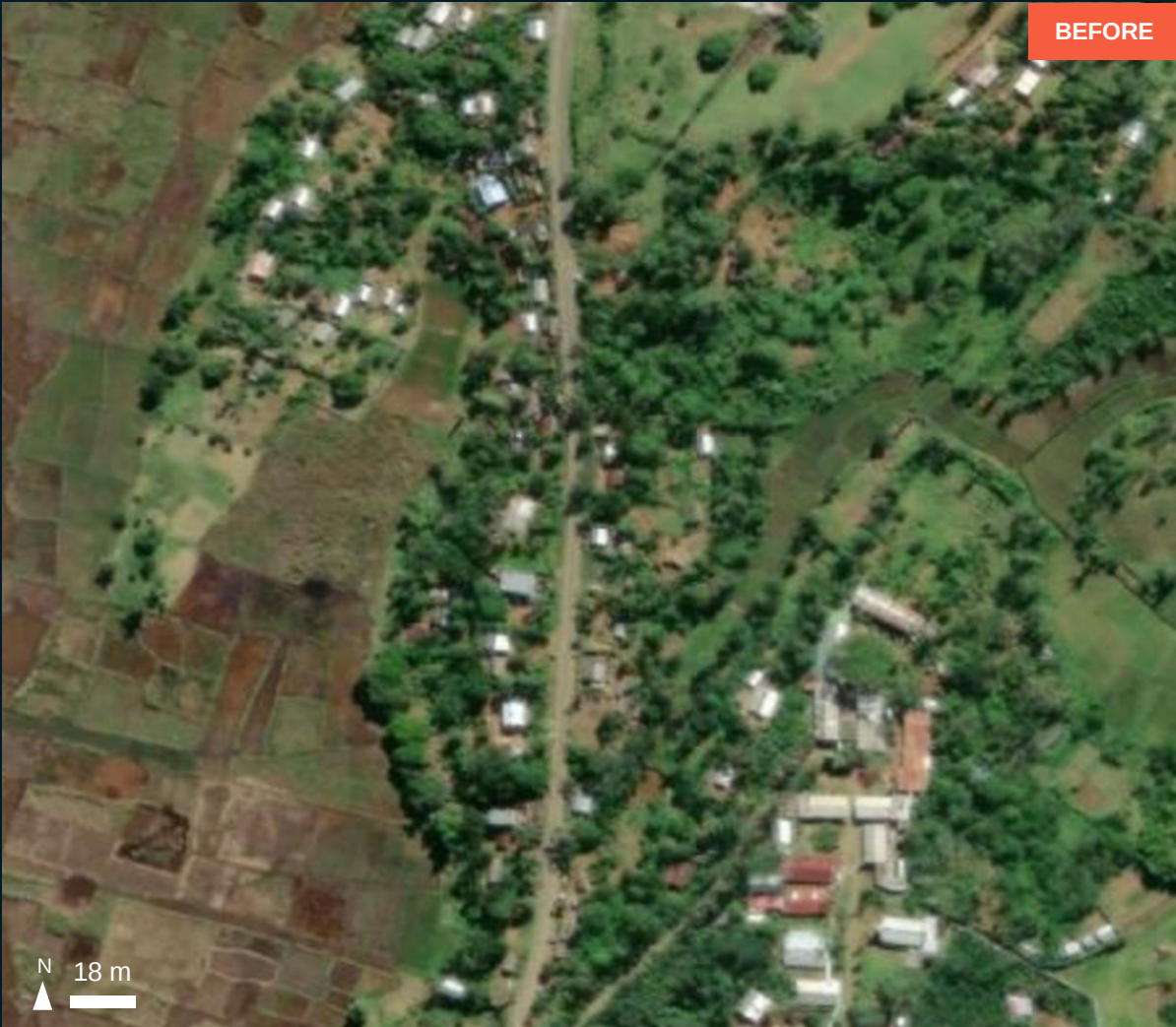


Pleiades / 24 Feb. 2023

AOI 2: Maromoby Fokontany, Vohipeno Commune, Vohipeno District

Flooded agricultural fields and potentially affected road

Image center:
22°18'49.3"S
47°49'20.5"E



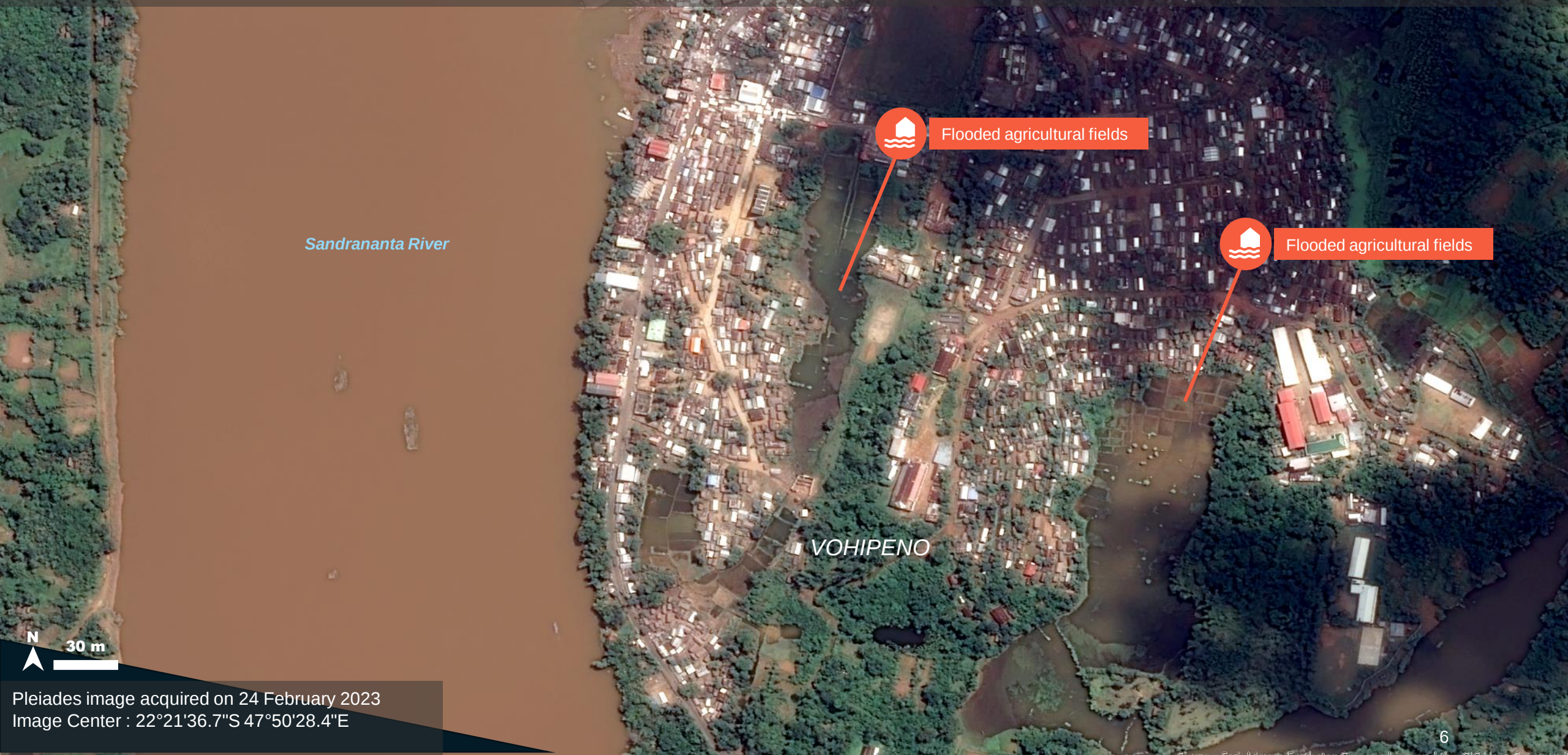
Worldview2 / 5 Nov. 2022



Pleiades / 24 Feb. 2023

VOHIPENO TOWN

Increase of water level of the Sandrananta river and inundated agricultural fields



Sandrananta River

Flooded agricultural fields

Flooded agricultural fields

VOHIPENO



Pleiades image acquired on 24 February 2023
Image Center : 22°21'36.7"S 47°50'28.4"E

AOI 3: Vohipeno town, Vatomasina Fokontany, Vohipeno Commune, Vohipeno District

Flooded land

Image center:
22°21'36.7"S
47°50'28.4"E



BEFORE

N 15 m

Worldview2 / 5 Nov. 2022



AFTER

Flooded land

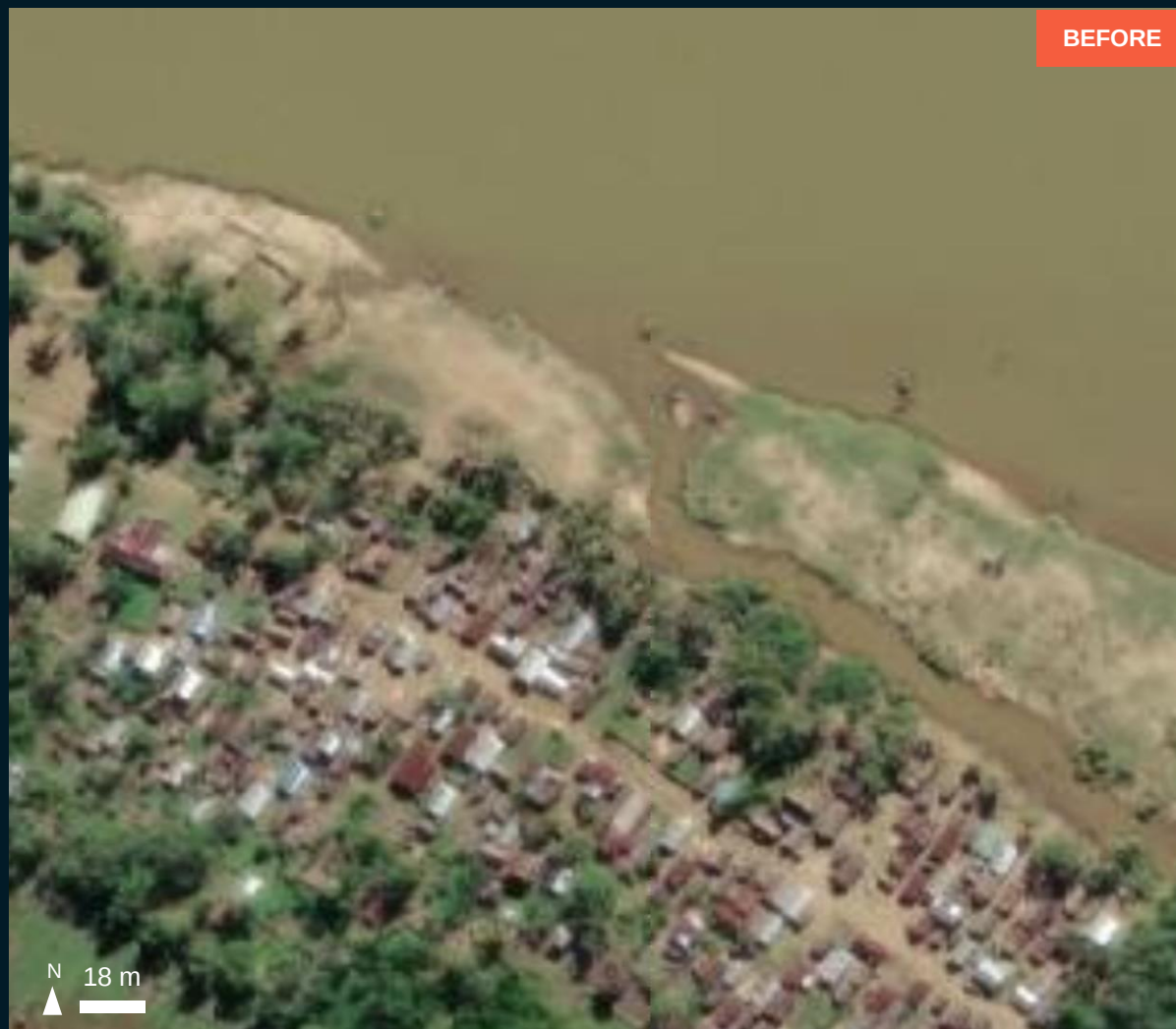
N 15 m

Pleiades / 24 Feb. 2023

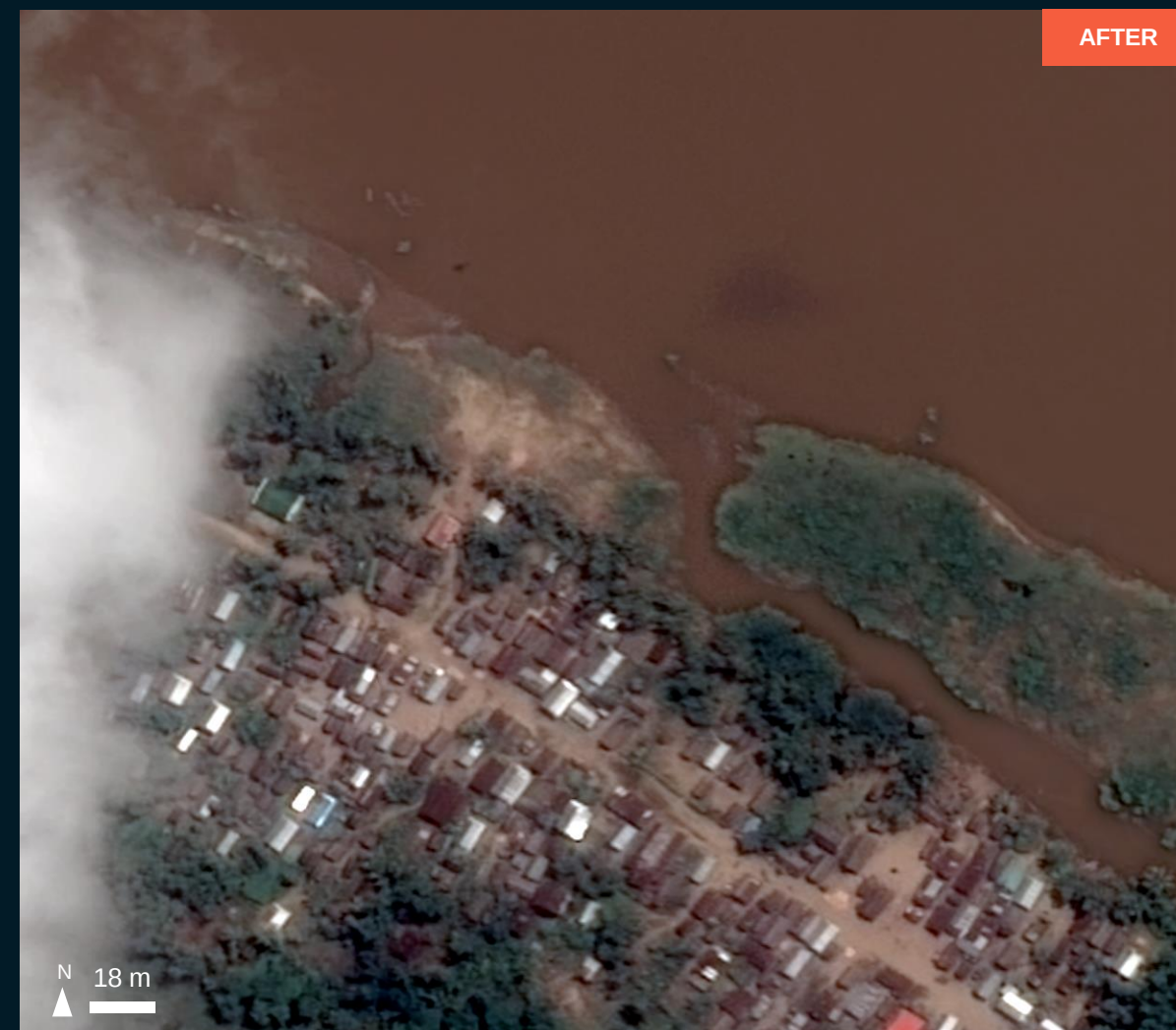
AOI 4: Onjatsy Fokontany, Onjatsy Commune, Vohipeno District

No major flood or major damage observed

Image center:
22°24'26.6"S
47°54'01.3"E



Worldview 2 / 5 Nov. 2022



Pleiades / 24 Feb. 2023

SUMMARY OF FINDINGS

- Increase of water level along the Sandrananta River observed as of 24 February 2023;
- Flooded agricultural fields in Maraokanjo, Maromoby and Vatomasina Fokontany observed as of 24 February 2023;
- No major damage to buildings observed as of 24 February 2023;
- Some buildings may have been affected by floods in the analyzed area.

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Data sources:

(1) Satellite Image (Post-event)

Sentinel-2 : 24 Feb.2023

Resolution: 10 m

Copyright: Contains modified Copernicus Sentinel Data [2023]

Source: ESA

Pléiades: 24 Feb. 2023

Resolution: 50 cm

Copyright : CNES (2023), distribution Airbus D&S

Source : Airbus D&S

(2) Satellite Image (Pre-event)

Satellite Data : WorldView-2

Imagery Dates : 5 Nov. 2022

Resolution: 50 cm

Source: ESRI Basemap

(3) Ancillary data

Administrative boundaries: Madagascar National Disaster
Management Office (BNGRC)

Analysis: UNITAR-UNOSAT

Production: UNITAR-UNOSAT



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