21 Feb 2022

TROPICAL CYCLONE BATSIRAI-22, PRELIMINARY SATELLITE-DERIVED FLOOD ASSESSMENT,

Amoron’I Mania and Vakinankaratra regions, Madagascar

Status: Increased water levels and potentially affected roads observed

Further action(s): Continue monitoring
Before Sentinel-2/ 6 Dec 2021

After Sentinel-2/ 19 Feb 2022

No flood observed
BETAFO DISTRICT, VAKINANKARATRA REGION

Increased water in agricultural areas and potentially affected road

Image center:
46°53'4.222"E
19°45'23.763"S

Sentinel-2/ 24 Dec 2021

Sentinel-2/ 19 Feb 2022
Increased water in agricultural areas

**Sentinel-2/ 24 Dec 2021**

**Sentinel-2/ 19 Feb 2022**

**Image center:**
46°55'15.931"E
19°44'49.796"S

**BETAFO DISTRICT, VAKINANKARATRA REGION**
BETAFO DISTRICT, VAKINANKARATRA REGION

Increased water and potentially affected roads

Before

Sentinel-2/ 6 Dec 2021

After

Sentinel-2/ 17 Feb 2022

Image center:
46°57’41.052”E
19°31’50.254”S

Vakinankaratra

500 m

Potentially affected road

Increased water

Potentially affected road
FARATSIHO TOWN, FARATSIHO DISTRICT, VAKINANKARATRA REGION

Increased water and potentially affected road

Before

Sentinel-2/ 6 Dec 2021

After

Sentinel-2/ 17 Feb 2022
AMBATOFINANDRAHANA DISTRICT, AMORON I MANIA REGION

Increased water of Mania river

Before: Sentinel-2 / 24 Dec 2021

After: Sentinel-2 / 19 Feb 2022

Image center: 46°41'37.334"E 20°15'52.167"S

Amoron I Mania Region

200 m

200 m
AMBOROMPOTSY TOWN, AMBATOFINANDRAHANA DISTRICT, AMORON I MANIA REGION

Increased water

Sentinel-2/ 24 Dec 2021

Sentinel-2/ 17 Feb 2022

Image center:
46°14'54.477"E
20°36'32.875"S
Increased water of Manambolo river

Sentinel-2/ 24 Dec 2021

Sentinel-2/ 17 Feb 2022
AMBOROMPOTSY TOWN, AMBATOFINANDRAHANA DISTRICT, AMORON I MANIA REGION

Increased water

Sentinel-2/ 24 Dec 2021

Sentinel-2/ 17 Feb 2022
SUMMARY OF FINDINGS

- No flood observed in Betafô town, Betafo district, Vakinankaratra region, as of 19 Feb 2022;
- Increased water in agricultural areas and potentially affected road in Betafo district, Vakinankaratra region, as of 19 Feb 2022;
- Increased water in agricultural areas and potentially affected road in Faratsiho Town, Faratsiho District, Vakinankaratra Region, as of 17 Feb 2022;
- Increased water level of Mania river in Ambatofinandrahana district, Amoron I Mania region observed as of 19 Feb 2022;
- Increased water level of Manambolo river in Ambatofinandrahana district, Amoron I Mania region, observed as of 17 Feb 2022;
- Increased water observed in Amborompotsy town, Ambatofinandrahana District, Amoron I Mania Region, as of 17 Feb 2022;
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Data sources:

(1) Satellite Image (Post-event)

Satellite: Sentinel-2A
Imagery Date: 17 February 2022 at 10:12 local time

Satellite: Sentinel-2B
Imagery Date: 19 February 2022 at 10:00 local time

Resolution: 10 cm
Copyright: Contains modified Copernicus Sentinel data [2022]
Source: ESA

(2) Satellite Image (Pre-event)

Satellite: Sentinel-2A and Sentinel-2B
Imagery Date: 16 and 24 December 2021
Resolution: 10 cm
Copyright: Contains modified Copernicus Sentinel data [2021]
Source: ESA

(3) Ancillary data

Administrative boundaries: Madagascar National Disaster Management Office (BNGRC)
Analysis: United Nations Satellite Centre (UNOSAT)
Production: United Nations Satellite Centre (UNOSAT)