


15 Feb 2022


TROPICAL CYCLONE BATSIRAI-22, PRELIMINARY SATELLITE-DERIVED ROAD DAMAGE ASSESSMENT,



Route 1 : Farafangana – Vondrozo District, Atsimo Atsinanana Province

Route 2 : Midongy Atsimo – Befotoka District, Atsimo Atsinanana Province

 Status: Inundated and damaged roads observed

 Further action(s): Continue monitoring



MADAGASCAR



●- - ● Assessed road

■ District boundary

■ Region boundary

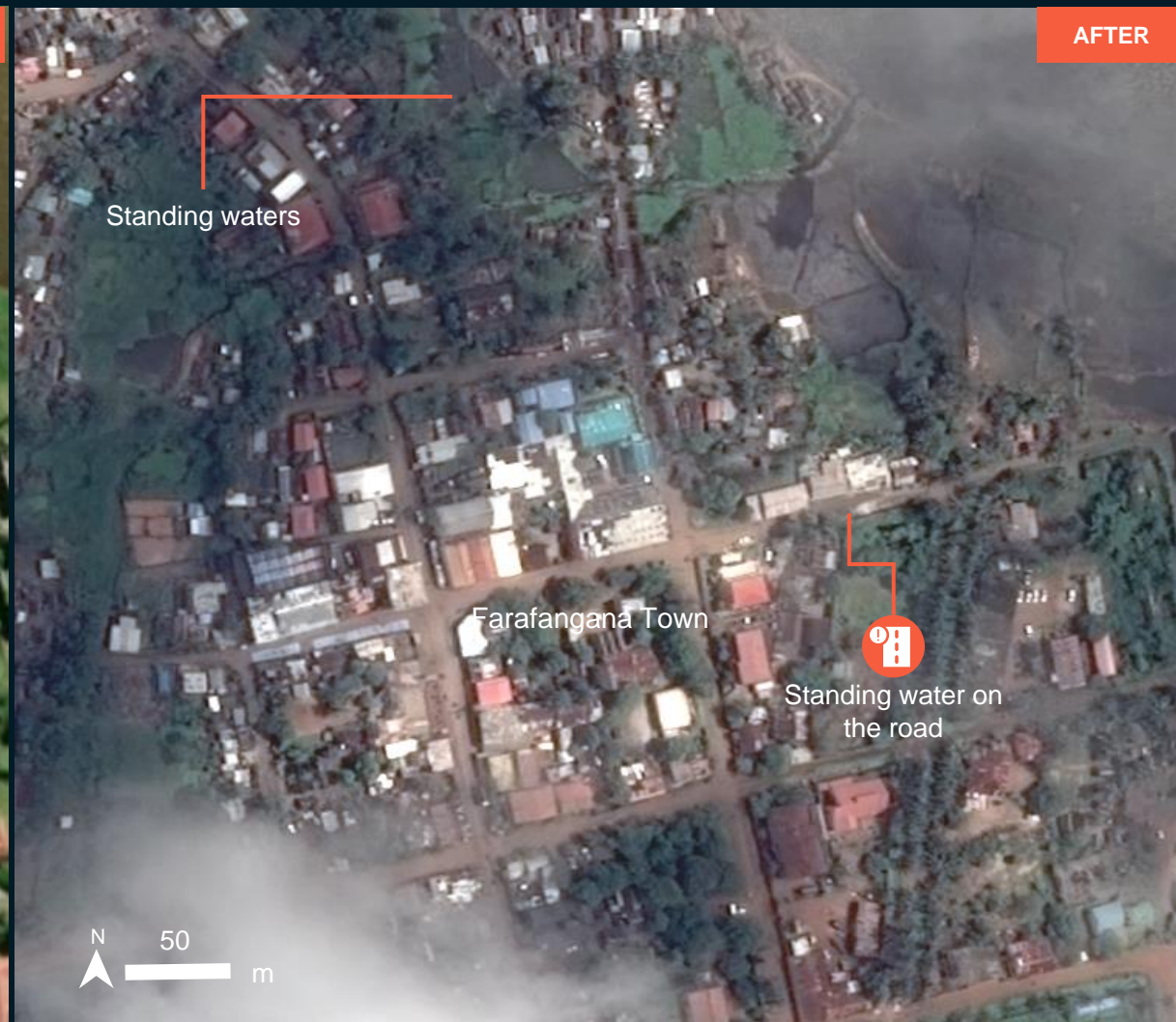
ROUTE 1- FARAFANGANA TOWN, FARAFANGANA DISTRICT, ATSIMO ATSIANANA REGION

Affected road

Atsimo
Atsinanana



Image center:
47°49'48.881"E
22°48'57.013"S



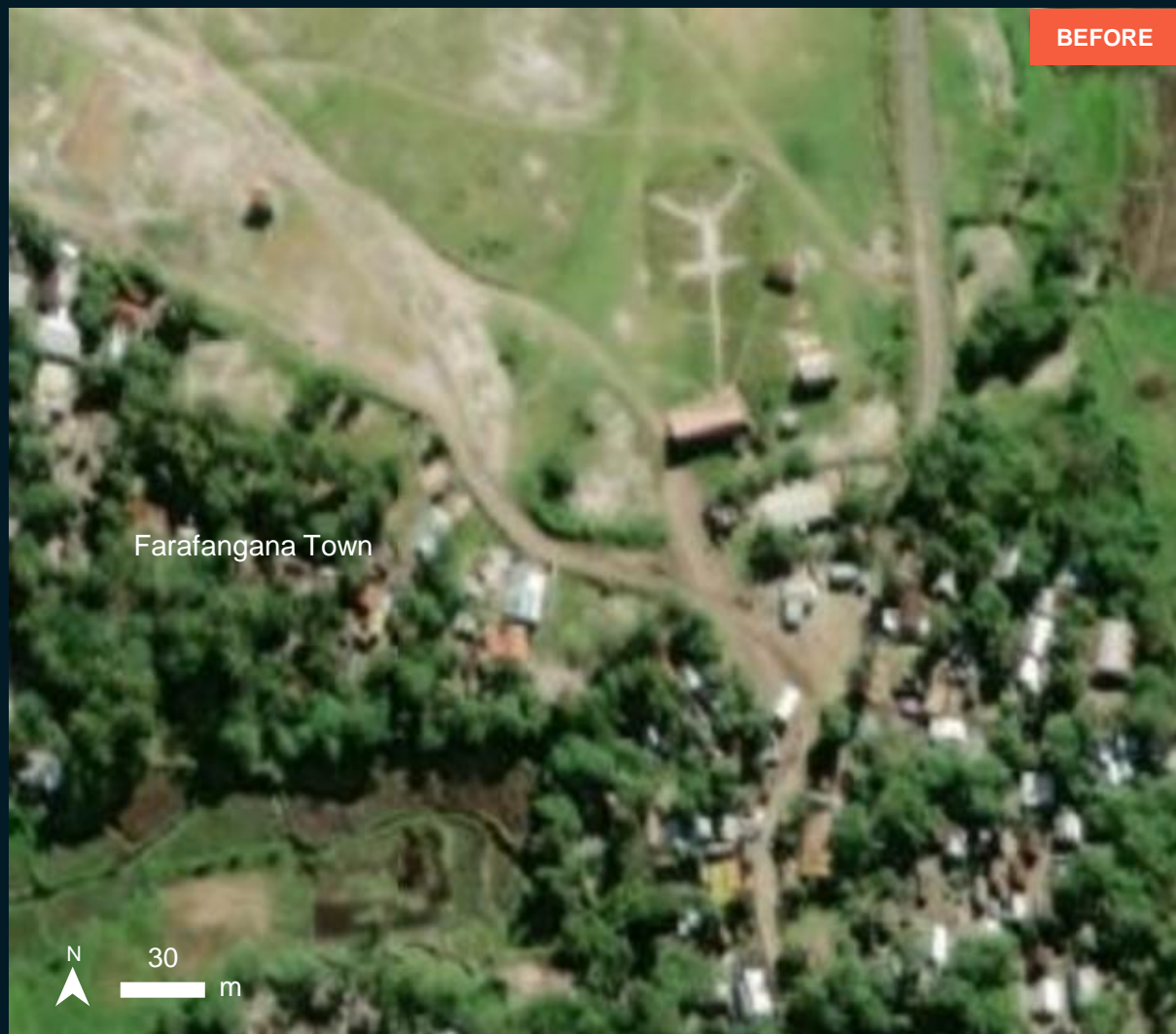
ROUTE 1- FARAFANGANA TOWN, FARAFANGANA DISTRICT, ATSIMO ATSIANANA REGION



Image center:
47°49'35.746"E
22°48'34.239"S



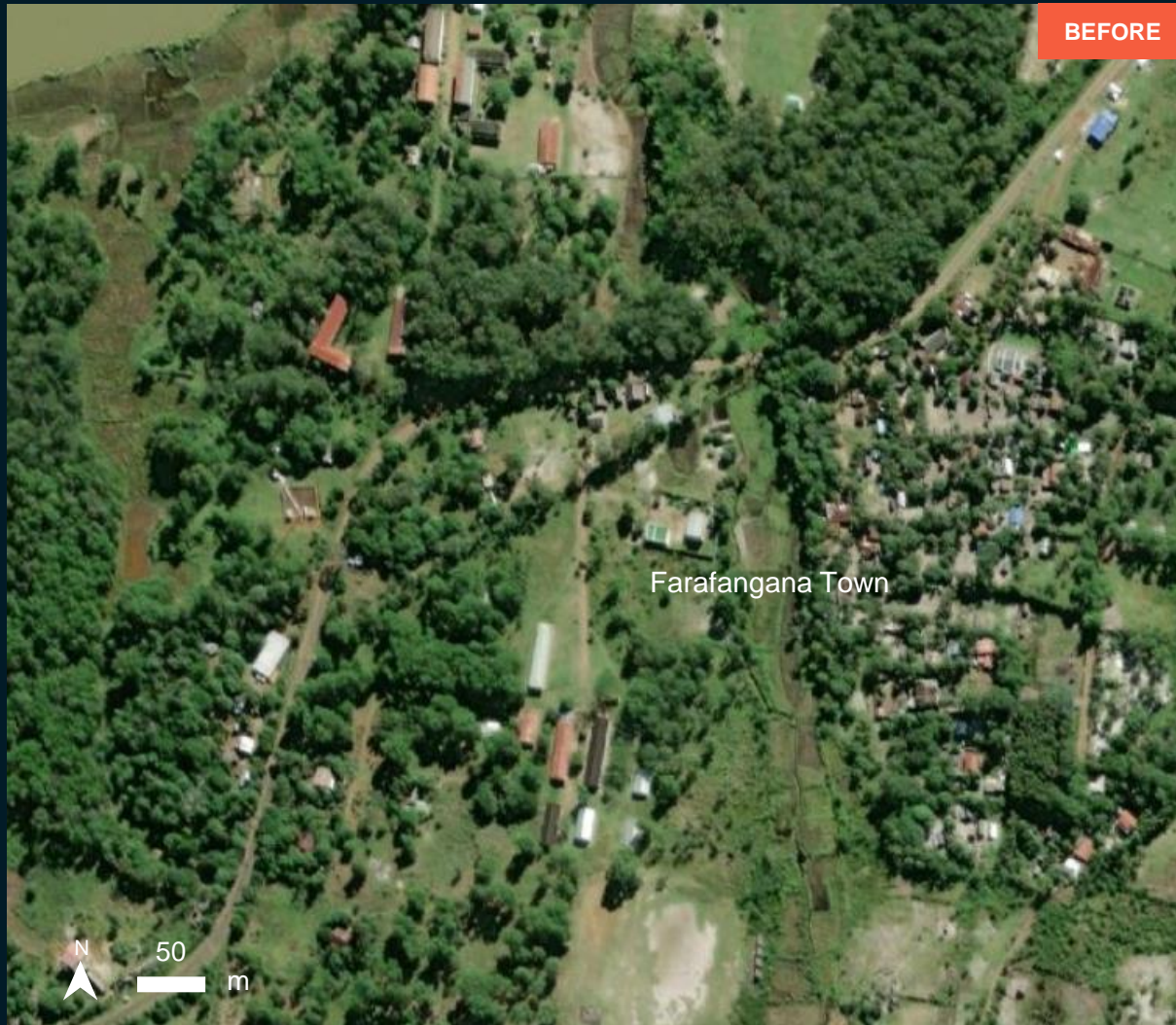
Affected road



ROUTE 1- FARAFANGANA TOWN, FARAFANGANA DISTRICT, ATSIMO ATSIANANA REGION

No visible damaged road

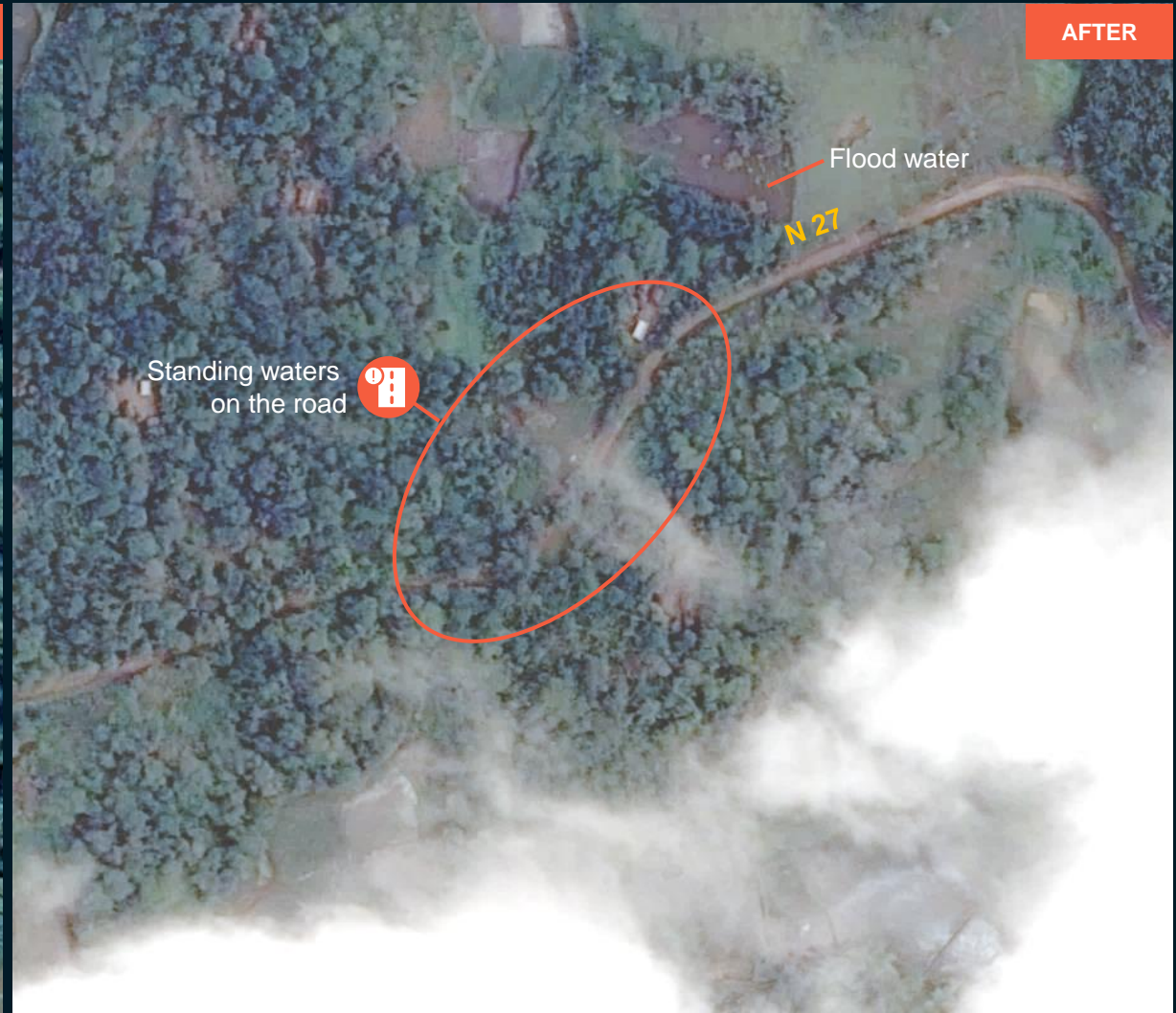
Image center:
47°49'49.443"E
22°50'1.285"S



ROUTE 1- FARAFANGANA DISTRICT, ATSIMO ATSIANANA REGION

Potentially inundated road observed

Image center:
47°31'33.854"E
22°48'46.5"S



Google Earth / May 2019

Pléiades / 15 Feb 2022

ROUTE 1- VONDROZO DISTRICT, ATSIMO ATSINANANA REGION

Image center:
47°28'52.345"E
22°49'6.553"S



Potentially damaged bridge and road



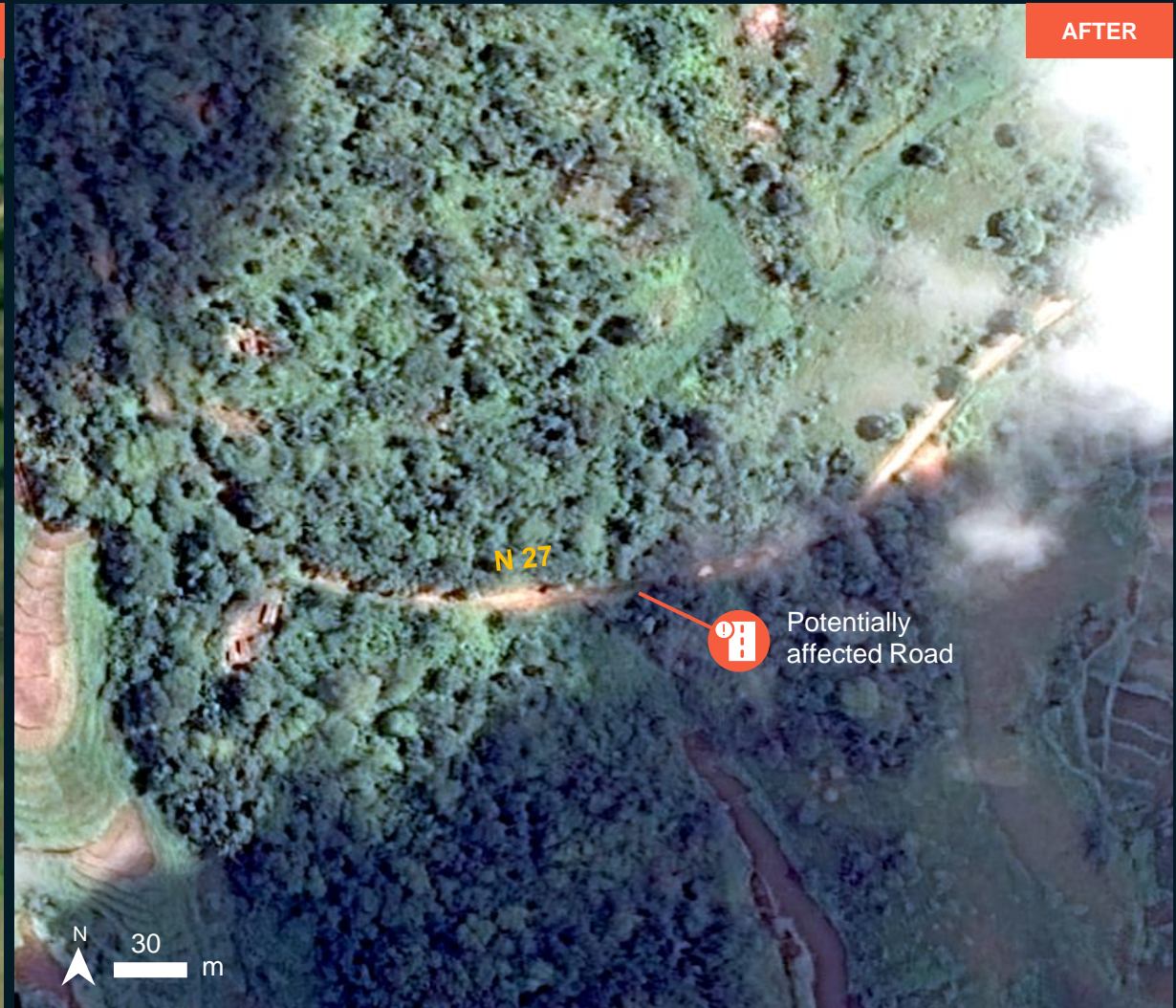
ESRI Basemap/GeoEye-1 /5 Aug 2020

Pléiades / 15 Feb 2022

ROUTE 1- VONDROZO DISTRICT, ATSIMO ATSINANANA REGION

Potentially road affected

Image center:
47°28'4.198"E
22°49'18.344"S



ROUTE 1- VONDROZO DISTRICT, ATSIMO ATSINANANA REGION

Potentially road affected

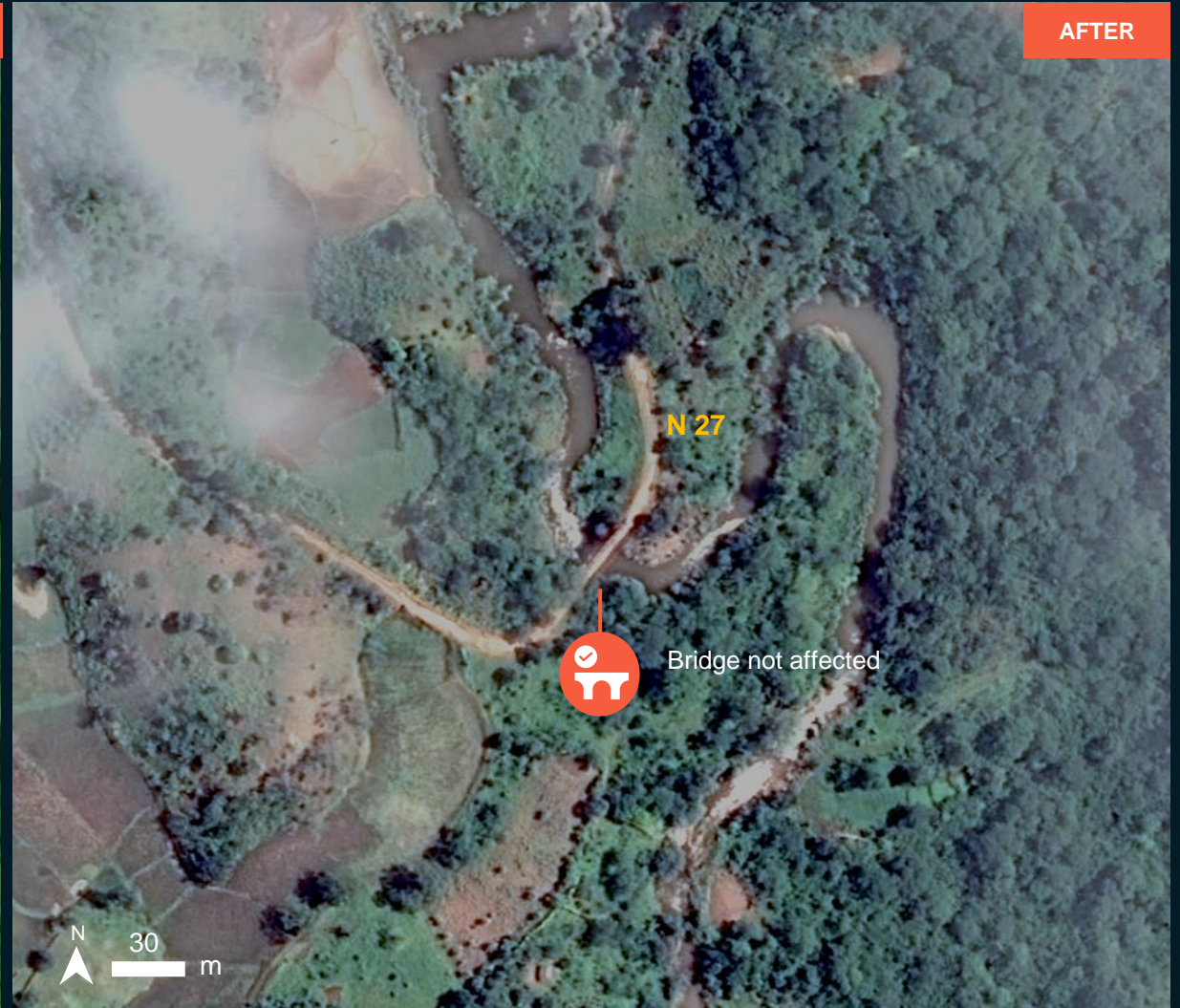
Image center:
47°24'53.552"E
22°49'4.396"S



ROUTE 1- VONDROZO DISTRICT, ATSIMO ATSINANANA REGION

No damage observed

Image center:
47°20'14.486"E
22°49'5.128"S



ESRI Basemap/ GeoEye-1 / 5 Aug 2020

Pléiades / 15 Feb 2022

ROUTE 2- MIDONGY-ATSIMO DISTRICT, ATSIMO ATSINANANA REGION

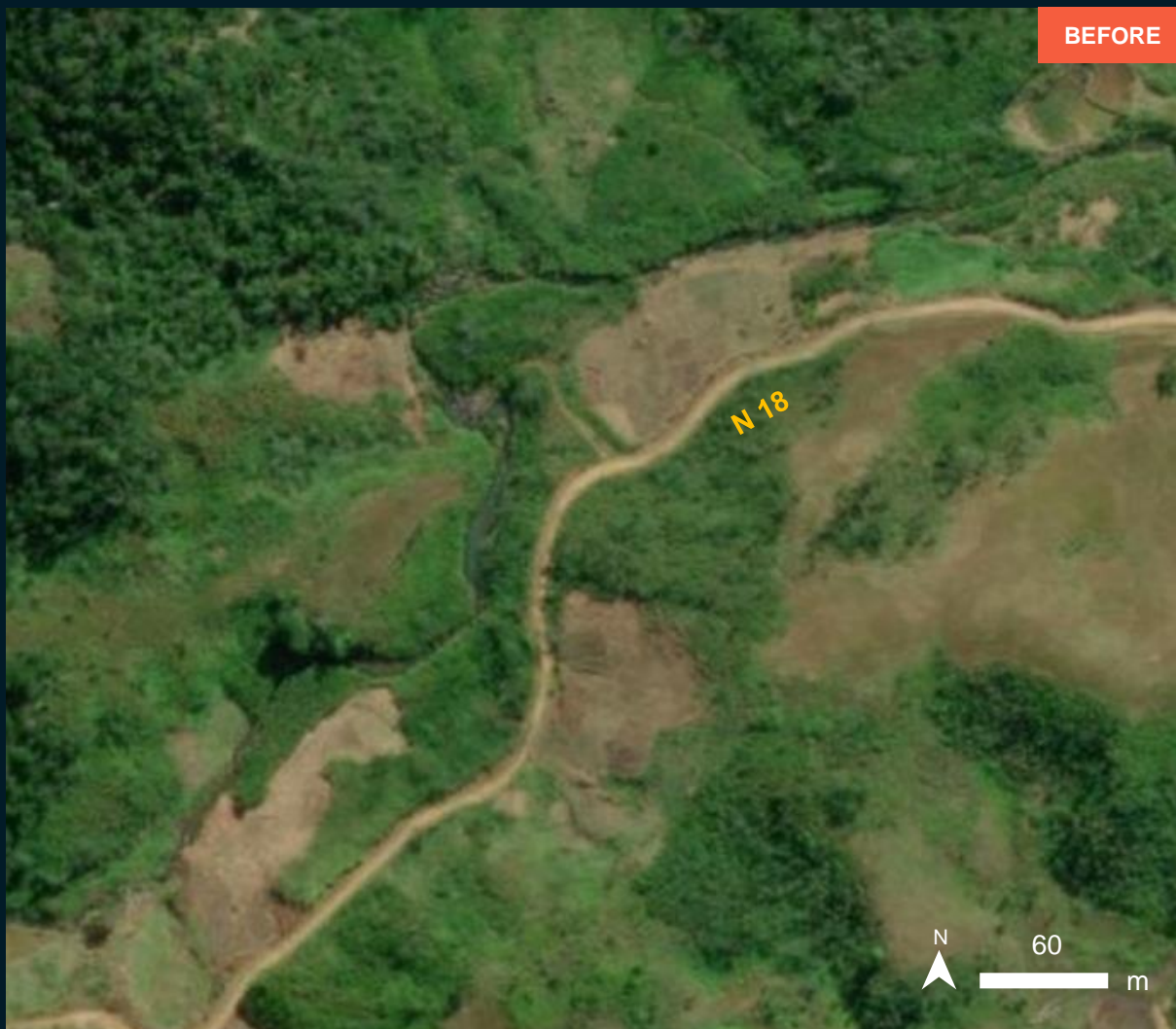
Atsimo
Atsinanana



Image center:
47°7'56.641"E
23°29'22.509"S



Damaged road



ESRI Basemap/GeoEye-1 /16 Aug 2020

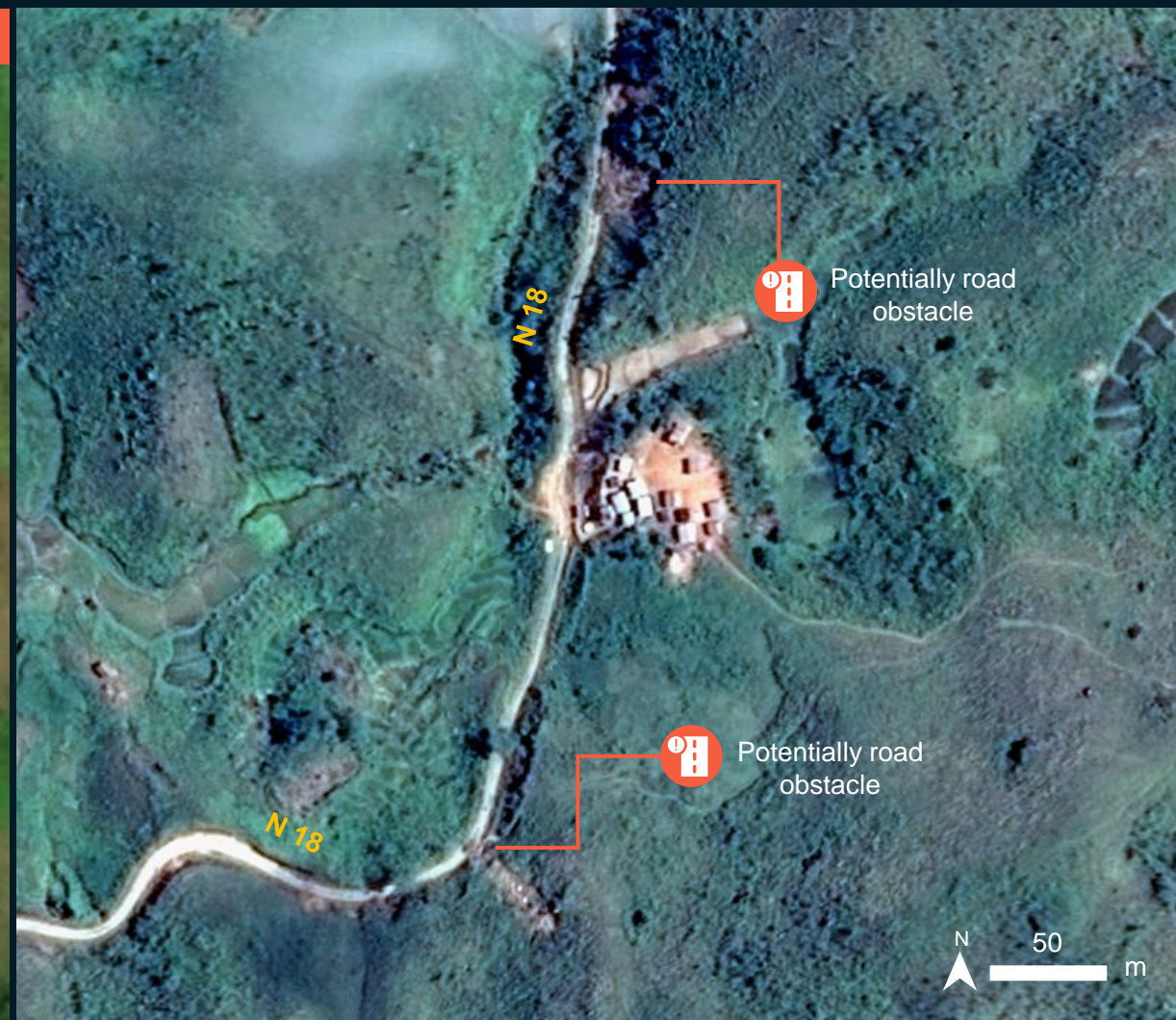
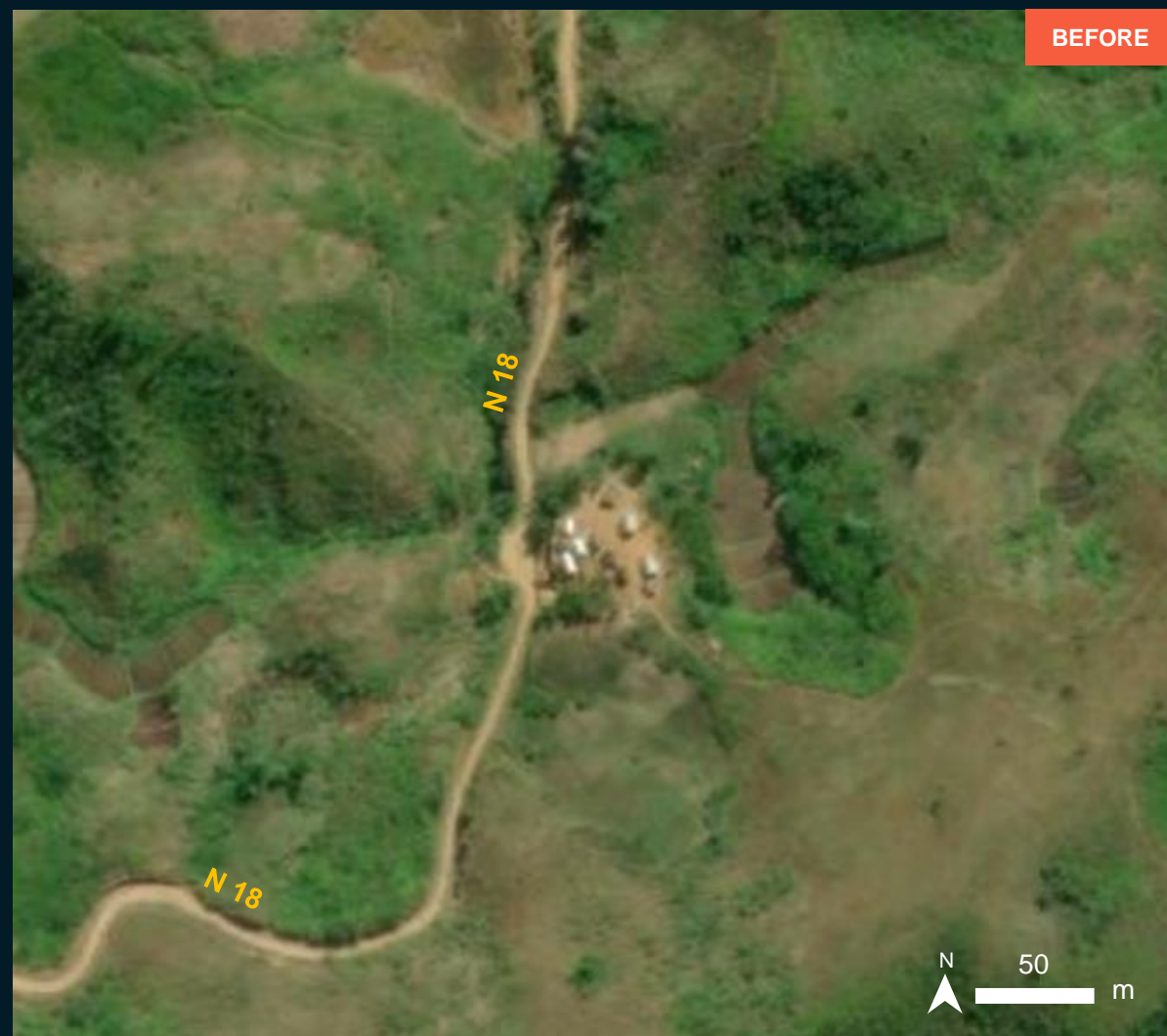


Pléiades / 15 Feb 2022

ROUTE 2- MIDONGY-ATSIMO DISTRICT, ATSIMO ATSINANANA REGION

Potentially road obstacles

Image center:
47°7'46.894"E
23°29'39.919"S



ESRI Basemap/GeoEye-1 /16 Aug 2020

Pléiades / 15 Feb 2022

ROUTE 2- MIDONGY TOWN, MIDONGY-ATSIMO DISTRICT, ATSIMO ATSIANANANA REGION

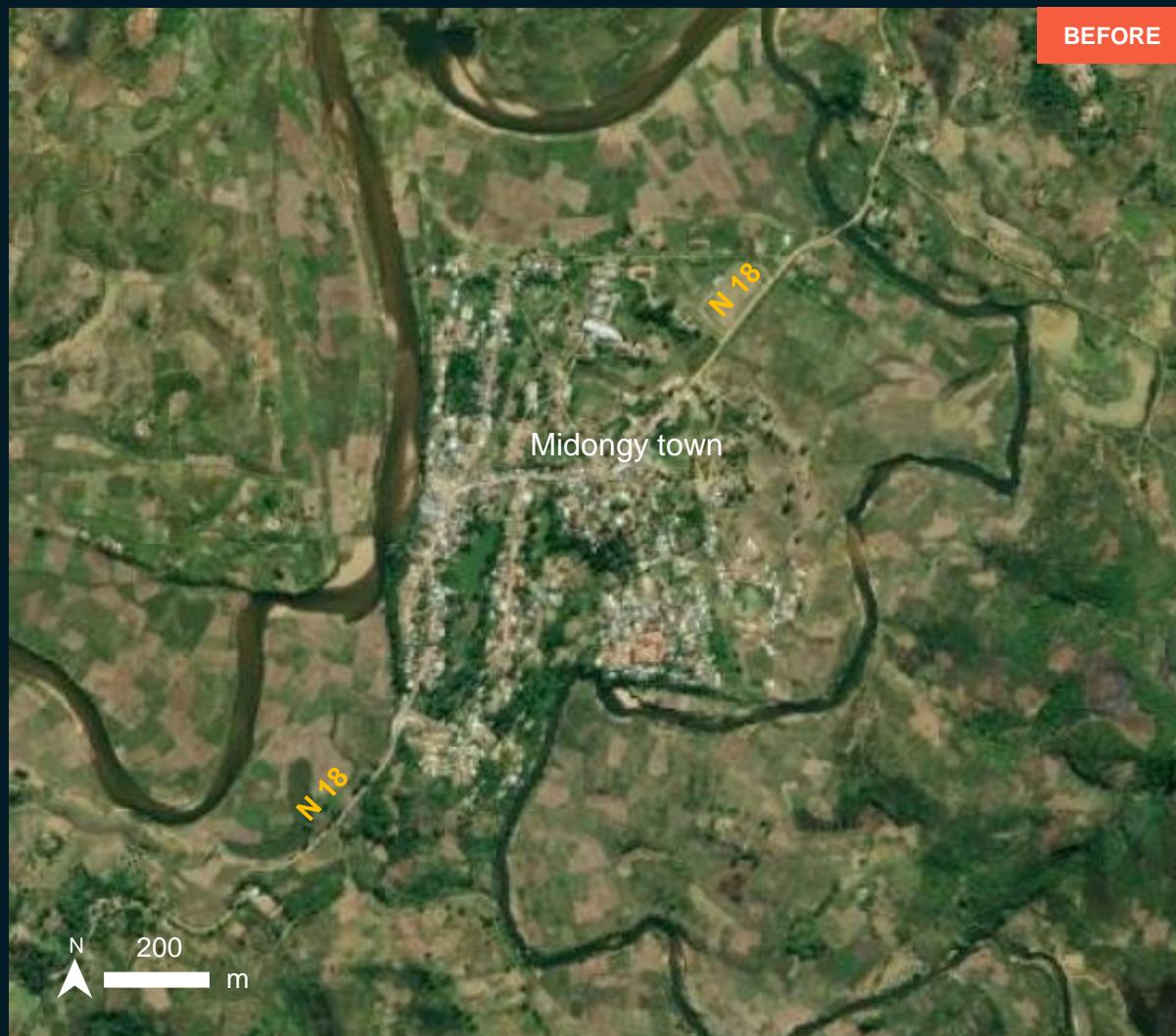
Atsimo
Atsinanana



Image center:
47°0'57.337"E
23°35'22.739"S



Inundated town and roads



ESRI Basemap/GeoEye-1 /16 Aug 2020

Sentinel-2 / 9 Feb 2022

ROUTE 2- MIDONGY-ATSIMO DISTRICT, ATSIMO ATSINANANA REGION

Atsimo
Atsinanana

Image center:
47°0'40.161"E
23°39'30.73"S



Inundated road



ESRI Basemap/GeoEye-1 /16 Aug 2020

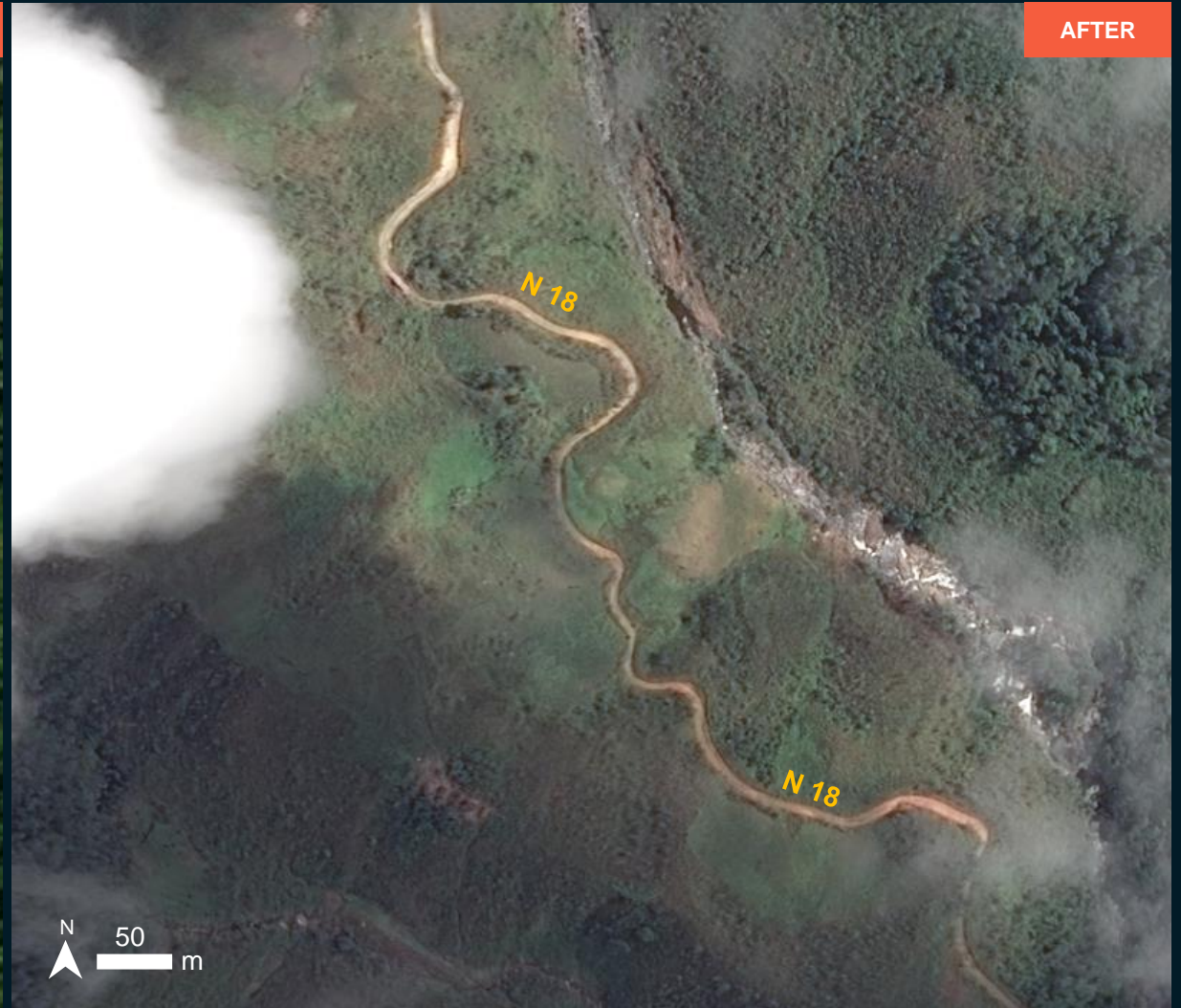
Sentinel-2 / 9 Feb 2022

ROUTE 2- MIDONGY-ATSIMO DISTRICT, ATSIMO ATSINANANA REGION

No visible damaged road

Image center:
47°2'0.412"E
23°43'23.283"S

Atsimo
Atsinanana



ESRI Basemap/GeoEye-1 /16 Aug 2020

Pléiades / 15 Feb 2022

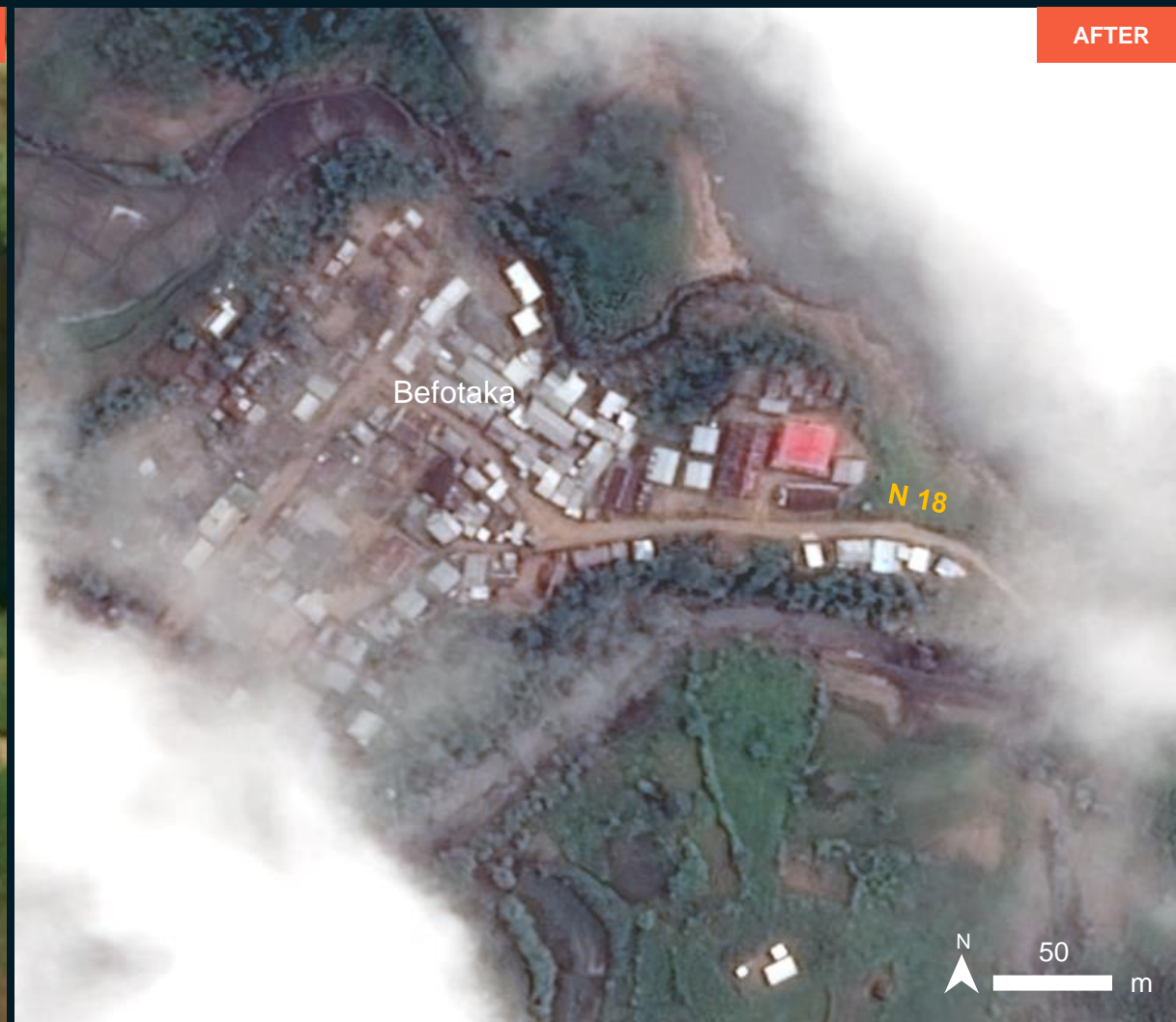
ROUTE 2- BEFOTAKA VILLAGE, BEFOTAKA DISTRICT, ATSIMO ATSIANANA REGION

No visible damaged road

Image center:
46°59'15.445"E
23°49'22.932"S



BEFORE



AFTER

SUMMARY OF FINDINGS

Route 1 : Farafangana – Vondrozo District, Atsimo Atsinanana Province

- Affected roads in Farafangana Town observed as of 15 Feb 2022;
- Potentially damaged road and standing waters observed in Vondrozo district as of 15 Feb 2022;
- Potentially damaged bridge observed in Vondrozo district as of 15 Feb 2022;

Route-2: Midongy Atsimo – Befotoka District, Atsimo Atsinanana Province

- Inundated road observed in Midongy town, Midongy Atsimo district as of 9 Feb 2022;
- Damaged road observed in Midongy Atsimo district as of 9 Feb 2022;
- No visible damaged road observed in Befotaka Village, Befotoka District, Atsimo Atsinanana Region as of 15 Feb 2022;

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Data sources:

(1) Satellite Image (Post-event)

Satellite : Pleiades

Imagery Date : 15 February 2022

Resolution : 50 cm

Copyright : ©CNES (2022), distribution Airbus D&S

Source : Airbus DS

Satellite : Sentinel-2

Imagery Date : 9 February 2022

Resolution : 10 cm

Copyright : Contains modified Copernicus Sentinel data [2022]

Source: ESA

(2) Satellite Image (Pre-event)

Google Earth

ESRI based map

(3) Ancillary data

Administrative boundaries: Madagascar National Disaster Management Office (BNGRC)

Analysis: United Nations Satellite Centre (UNOSAT)

Production: United Nations Satellite Centre (UNOSAT)

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