



9 June 2021

PRELIMINARY SATELLITE- DERIVED FLOOD ASSESSMENT



Guyana

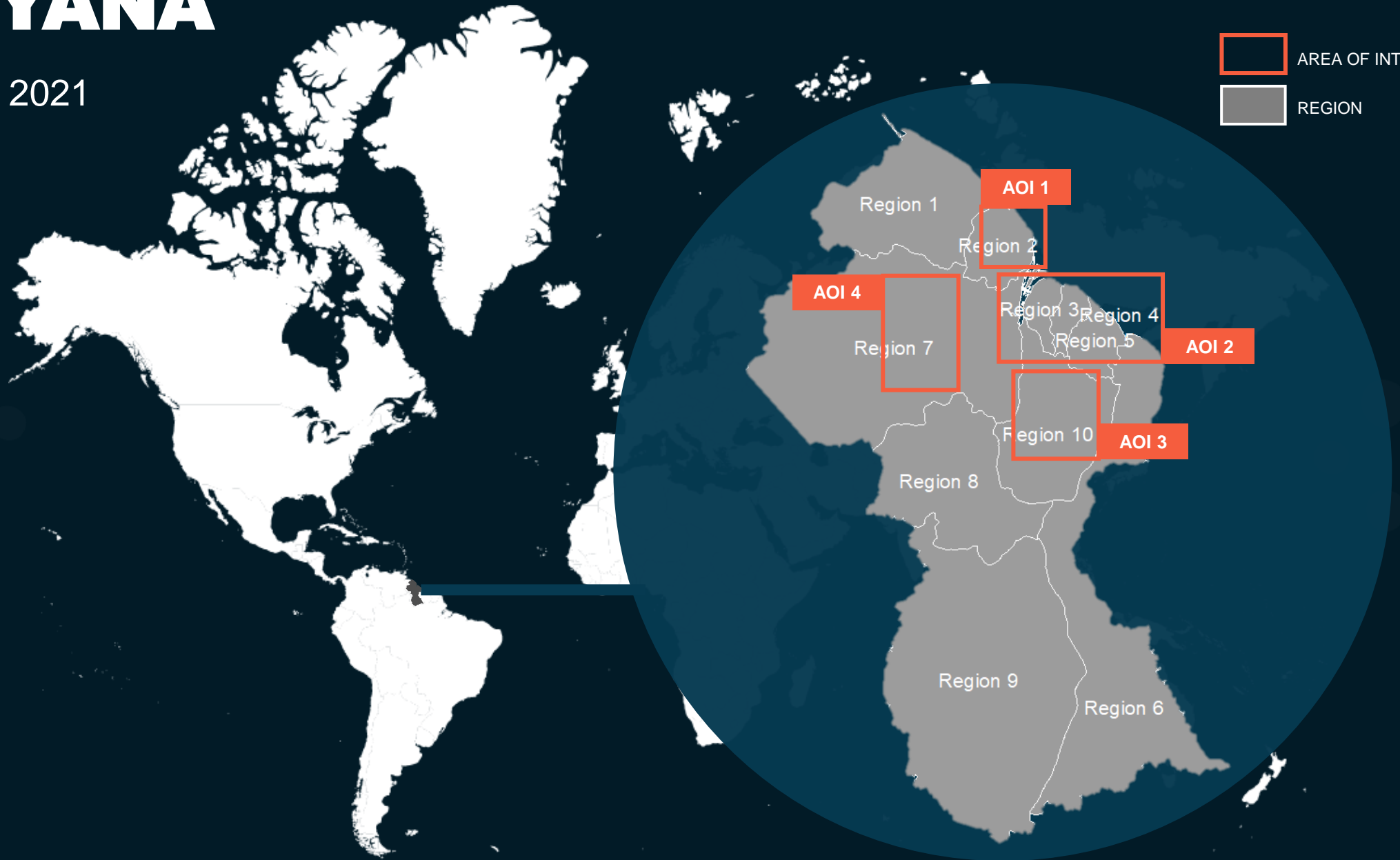
 Status: Water increase of several rivers

 Further action(s): continue monitoring

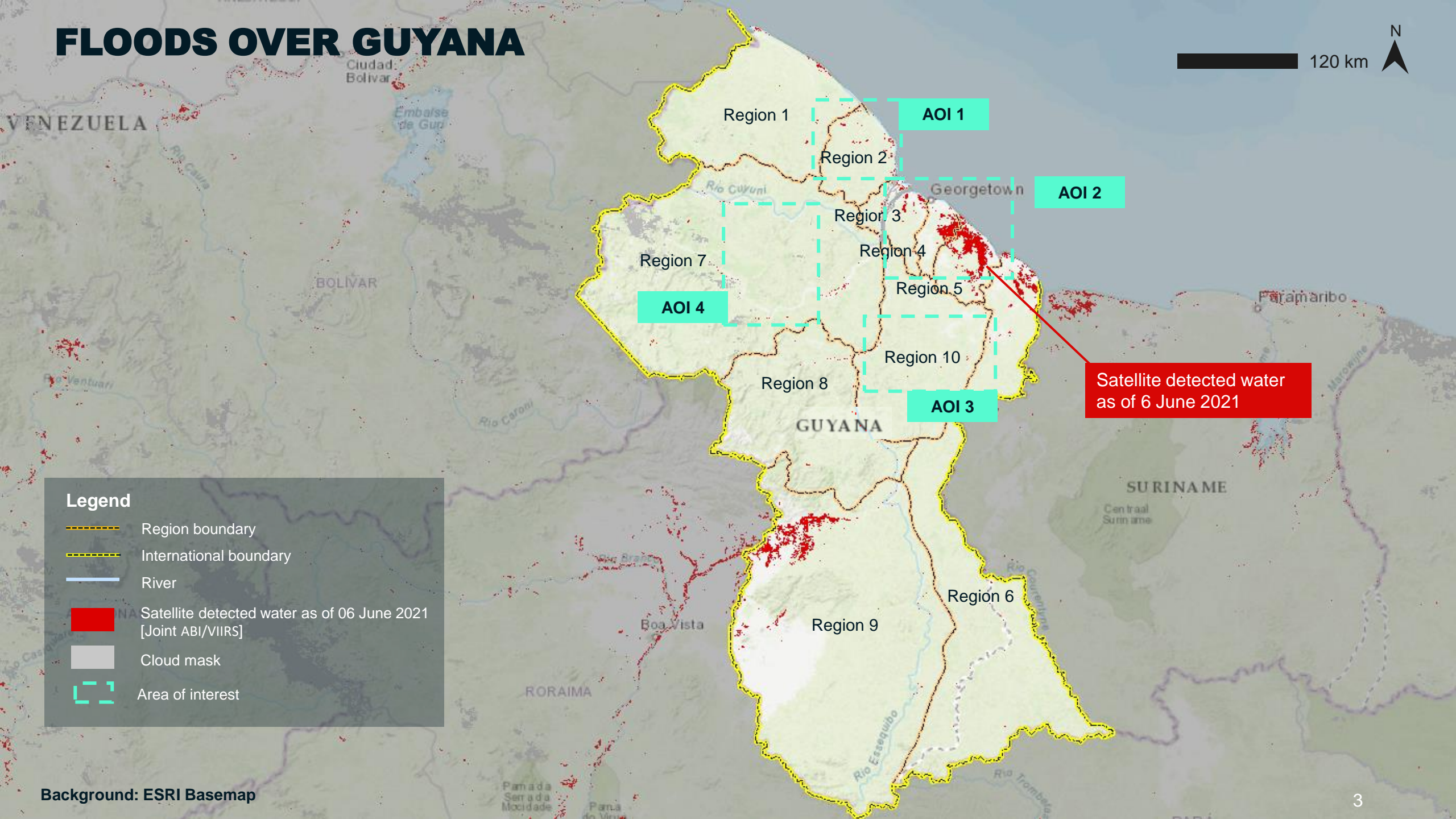
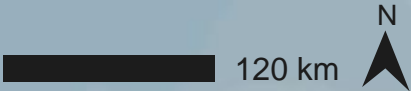


GUYANA

9 June 2021



FLOODS OVER GUYANA



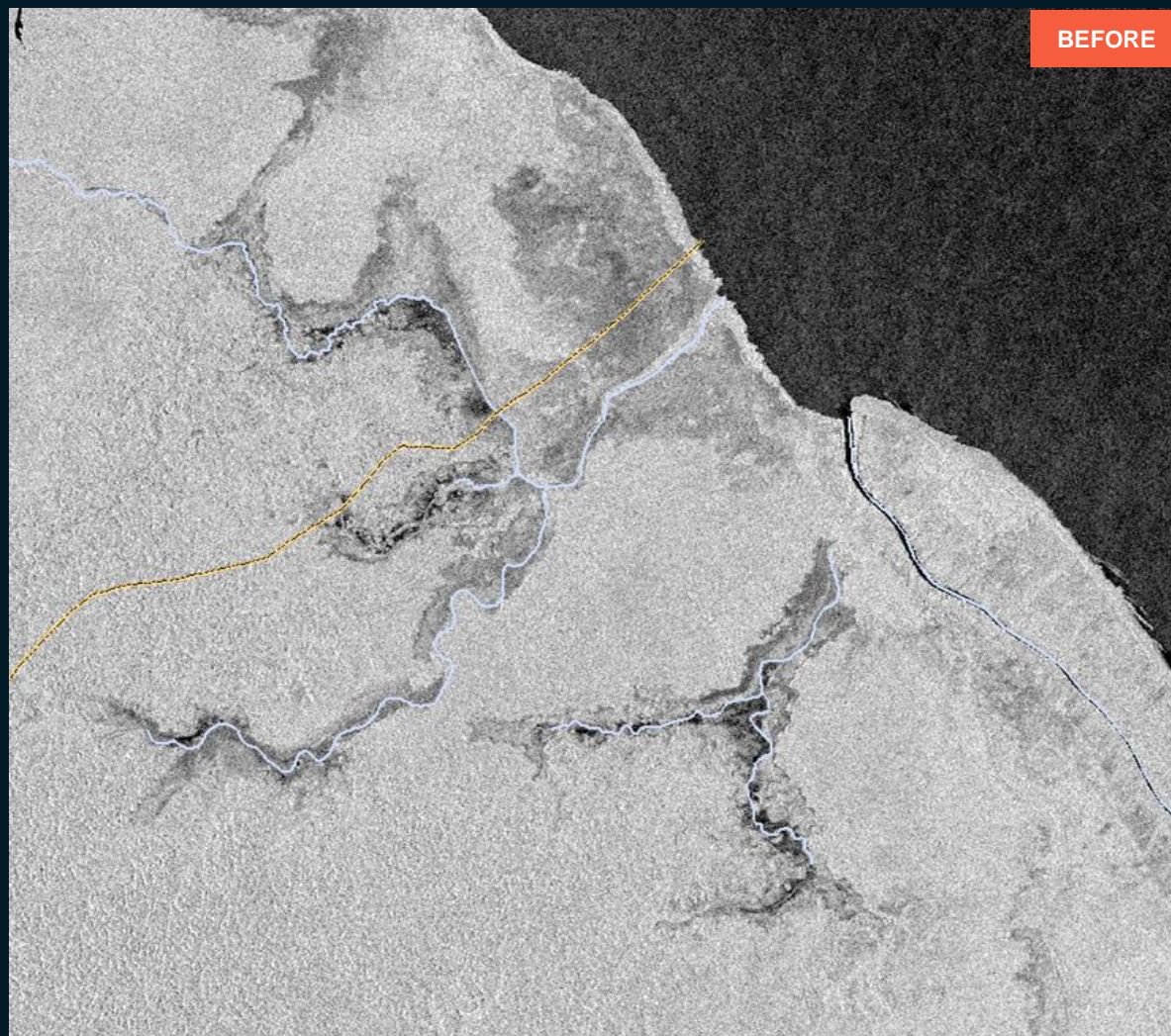
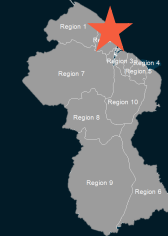
Legend

- Region boundary
- International boundary
- River
- Satellite detected water as of 06 June 2021 [Joint ABI/VIIRS]
- Cloud mask
- Area of interest

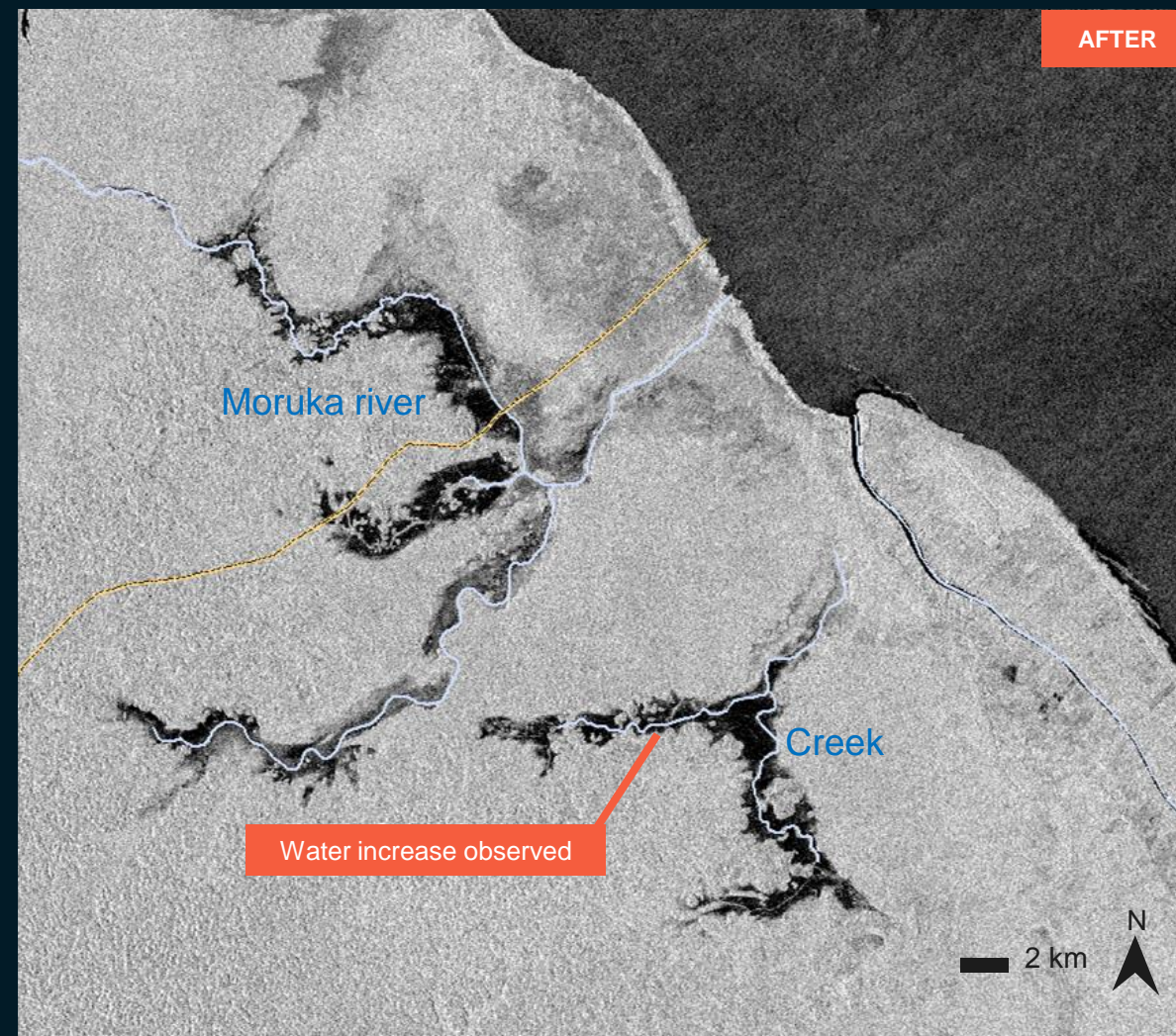
AOI 1-1 Region 2 / Pomeroon-Supenaam

Water increase along the Moruka river

Image center:
58°50'51.244"W
7°36'19.174"N



Sentinel-1 / 1 May 2021



Sentinel-1 / 6 June 2021

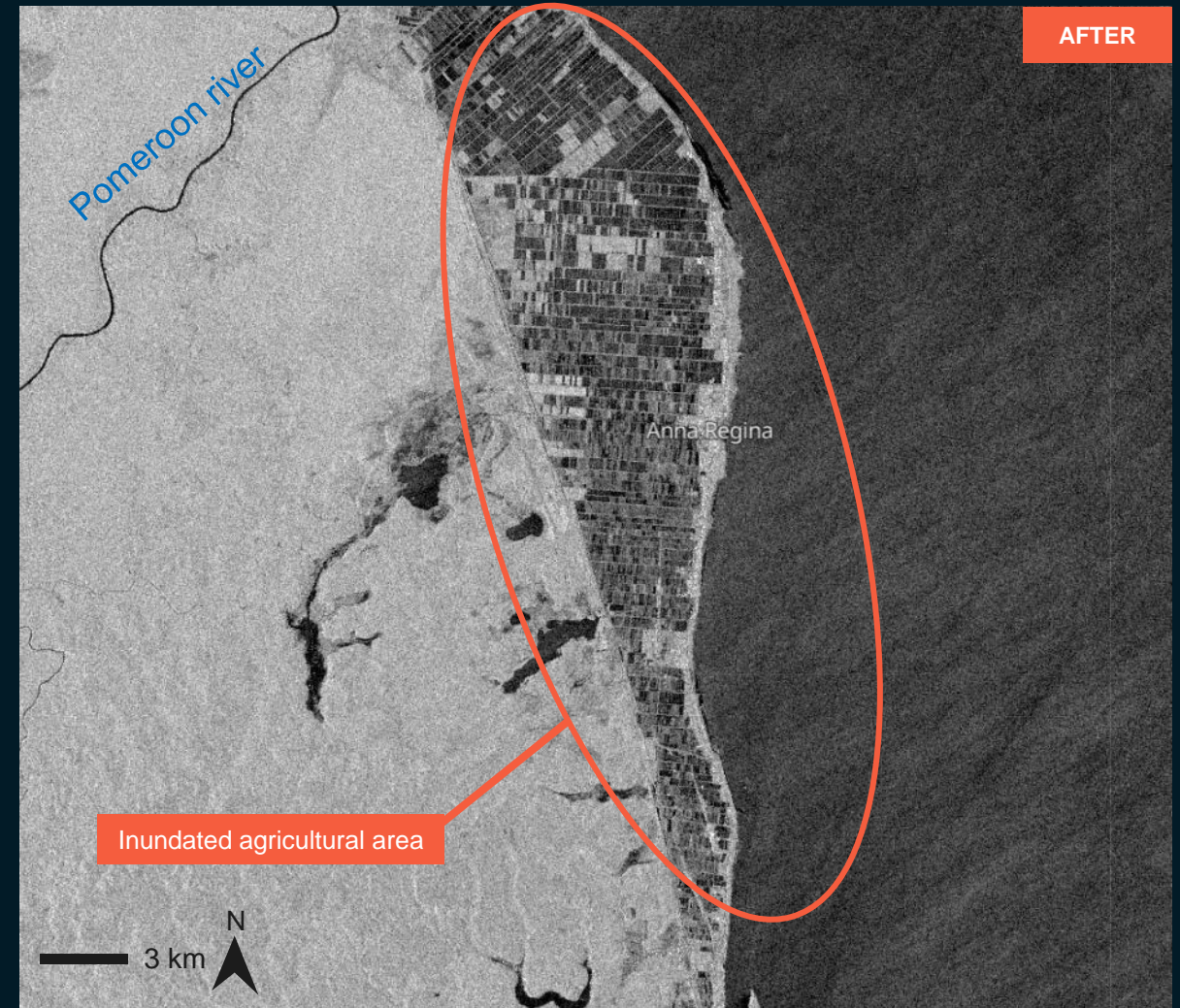
AOI 1-2 Region 2 / Pomeroon-Supenaam

Inundated agricultural area

Image center:
58°31'33.969"W
7°14'21.714"N



Sentinel-1 / 1 May 2021



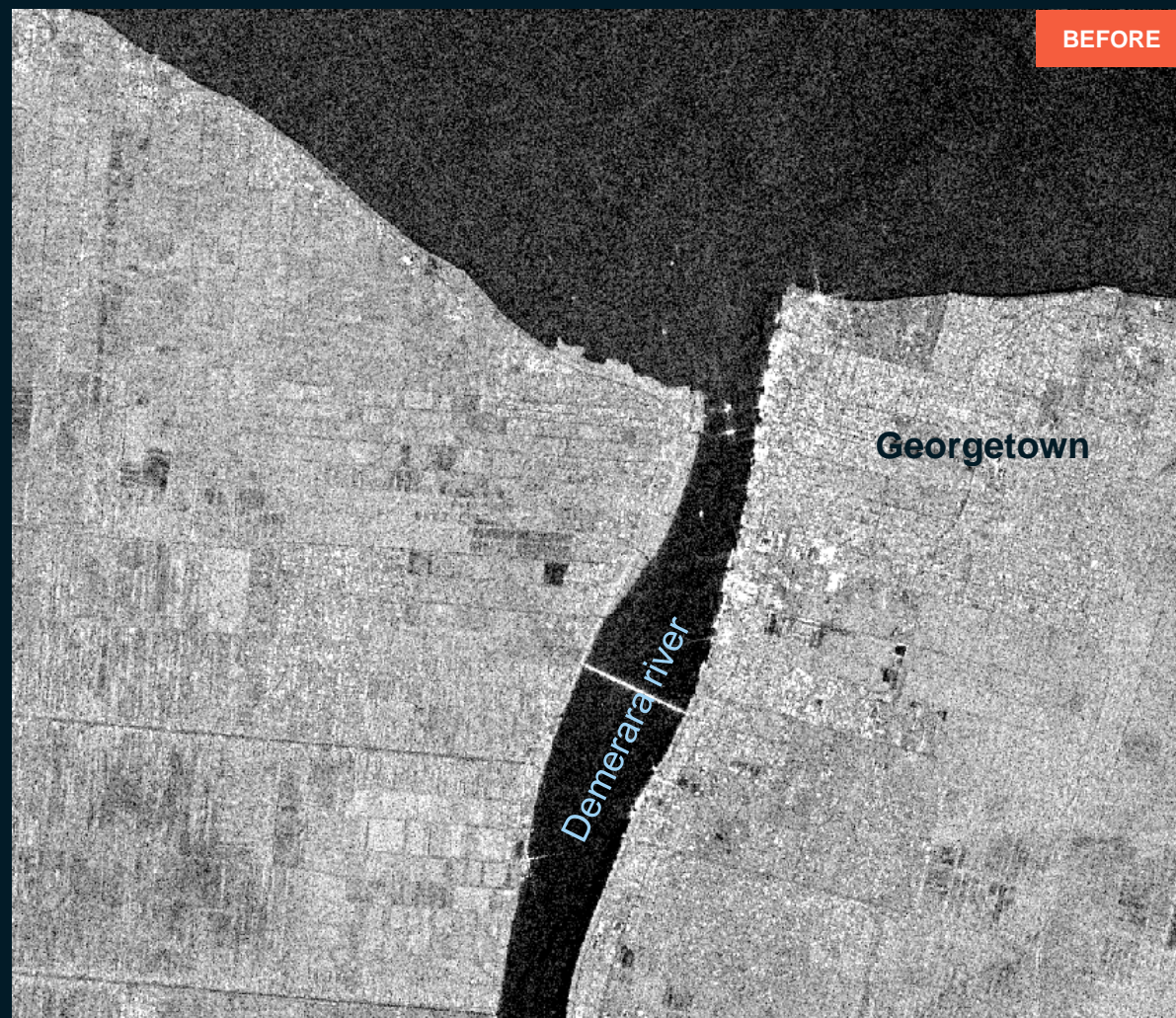
Sentinel-1 / 6 June 2021

AOI 2-1 Region 3 / Essequibo Islands-West Demerara

Image center:
58°11'22.3"W
6°47'5.596"N



Inundated agricultural area



Sentinel-1 / 1 May 2021



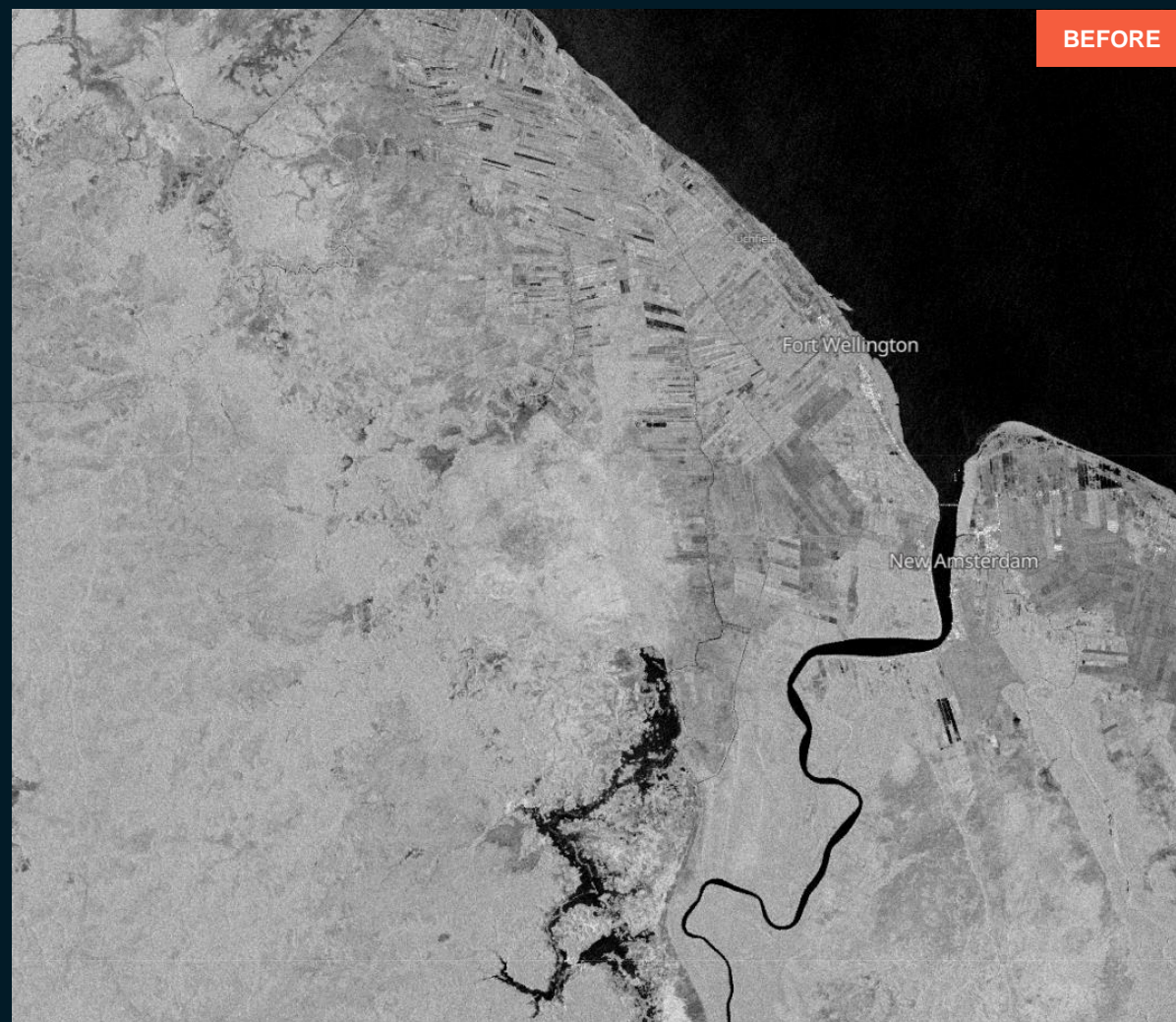
Sentinel-1 / 6 June 2021

AOI 2-2 Region 4 / Demerara-Mahaica and 5 / Mahaica Berbice

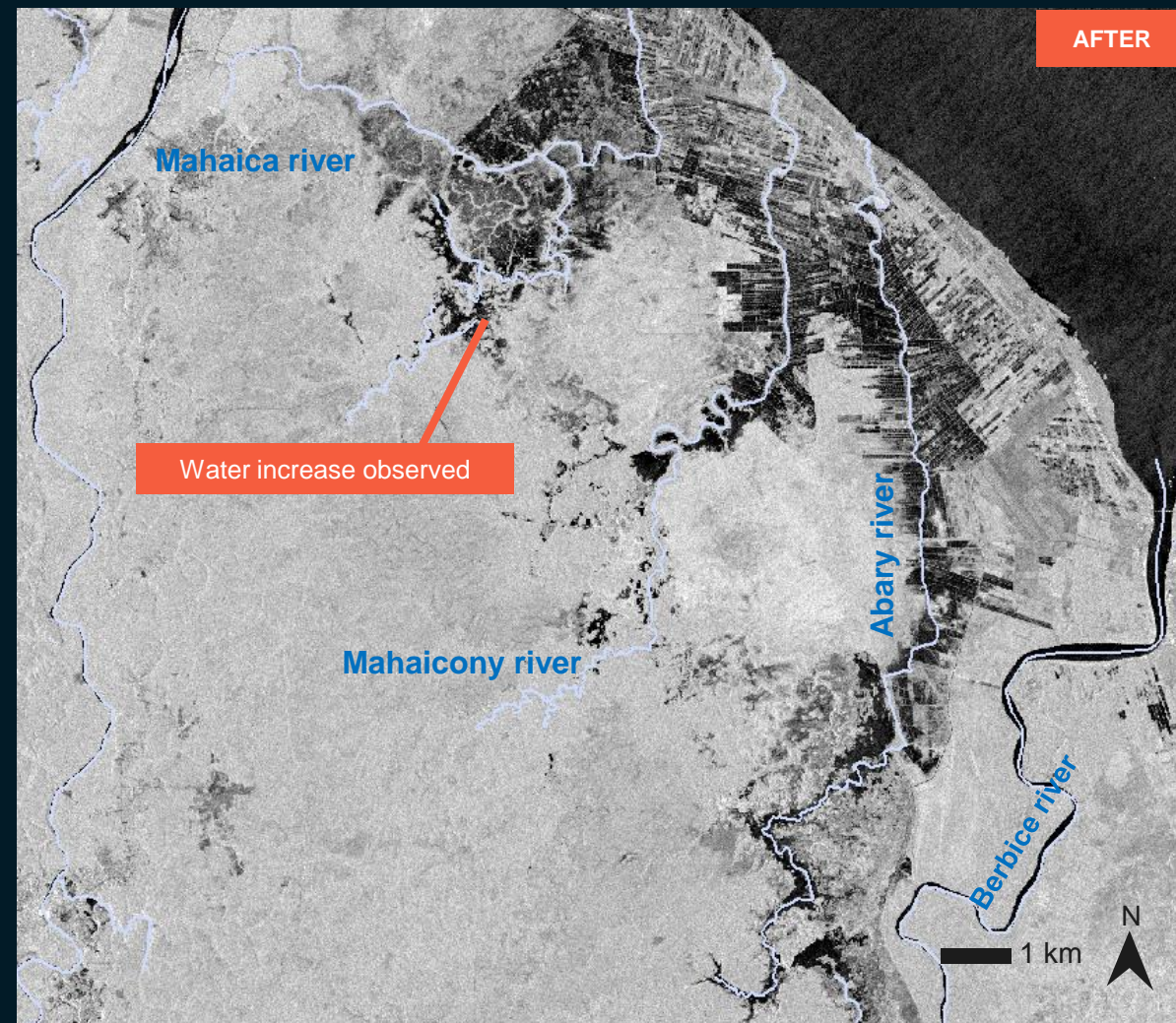
Image center:
57°44'15.584"W
6°14'15.754"N



Inundated agricultural area along the Mahaica, Mahaicony and Abary rivers



Sentinel-1 / 1 May 2021



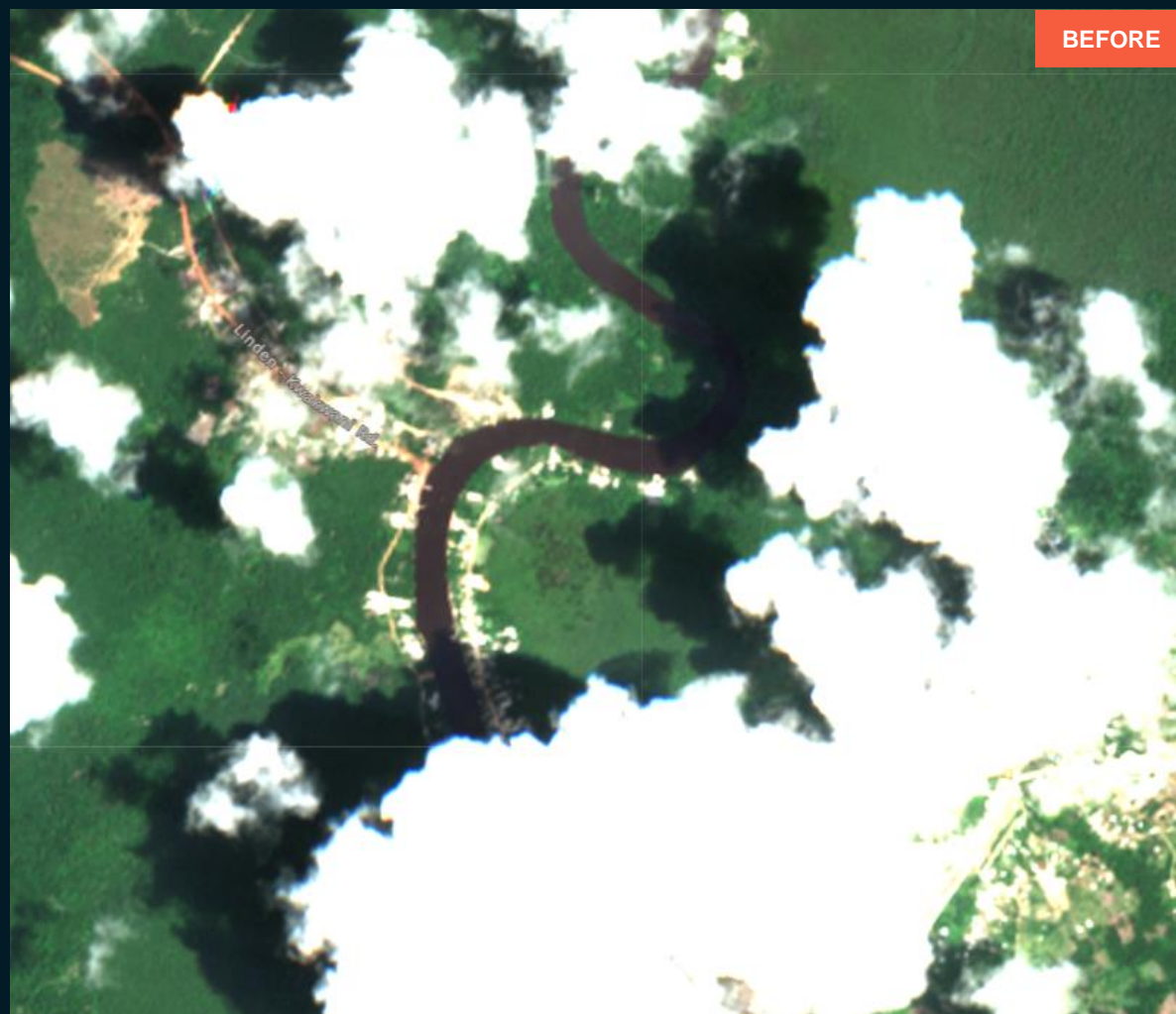
Sentinel-1 / 6 June 2021

AOI 3-1 Region 10 / Upper Demerara-Berbice

Image center:
58°4'42.178"W
5°16'11.555"N



Potentially affected structures observed along the Berbice river



Sentinel-2 / 18 Mar 2021



Sentinel-2 / 6 June 2021

AOI 3-2 Region 10 / Upper Demerara-Berbice

Image center:
58°17'27.792"W
6°0'12.697"N



No floods observed along the Demerara river



Sentinel-1 / 1 May 2021

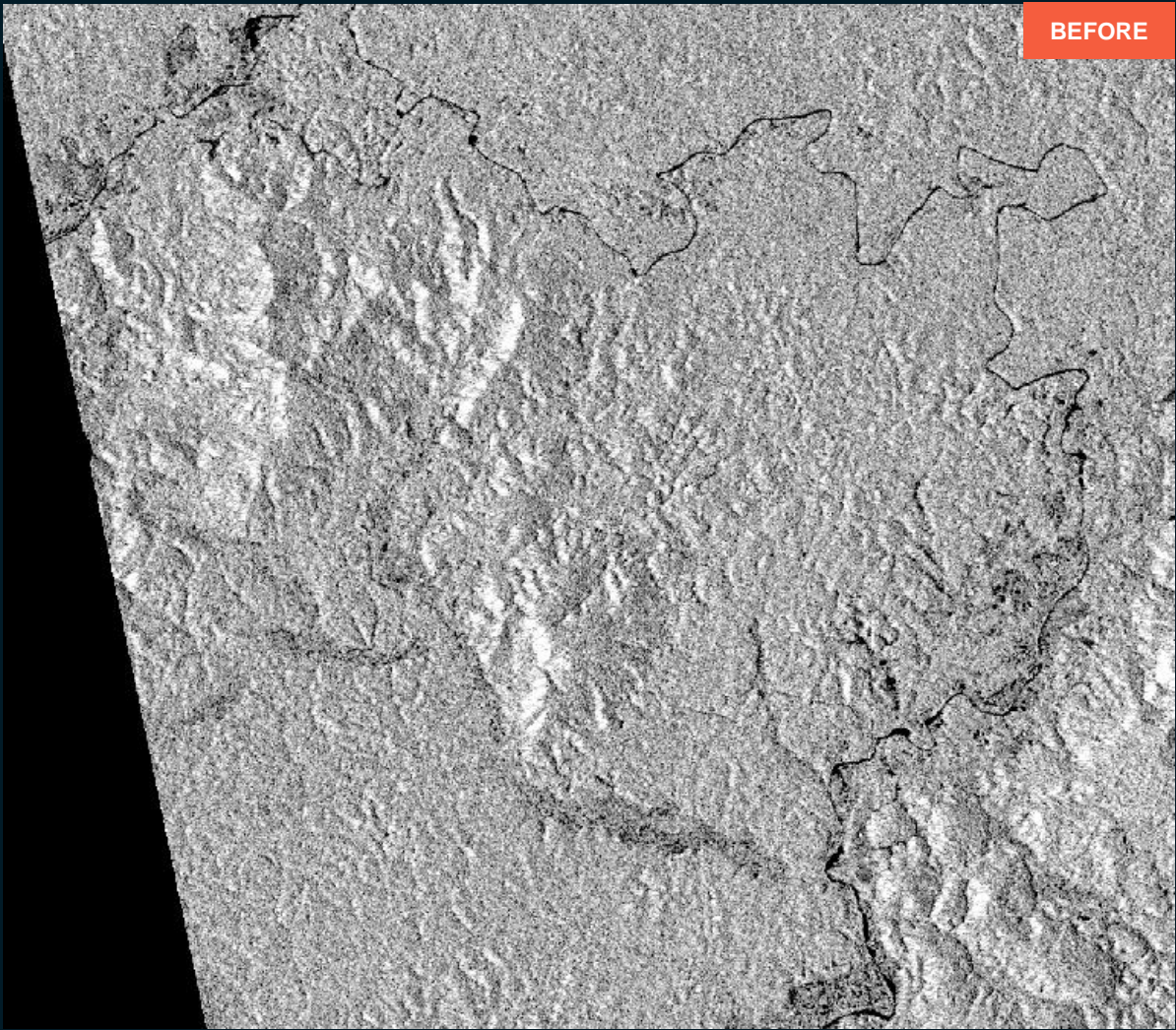


Terra SAR-X / 8 June 2021

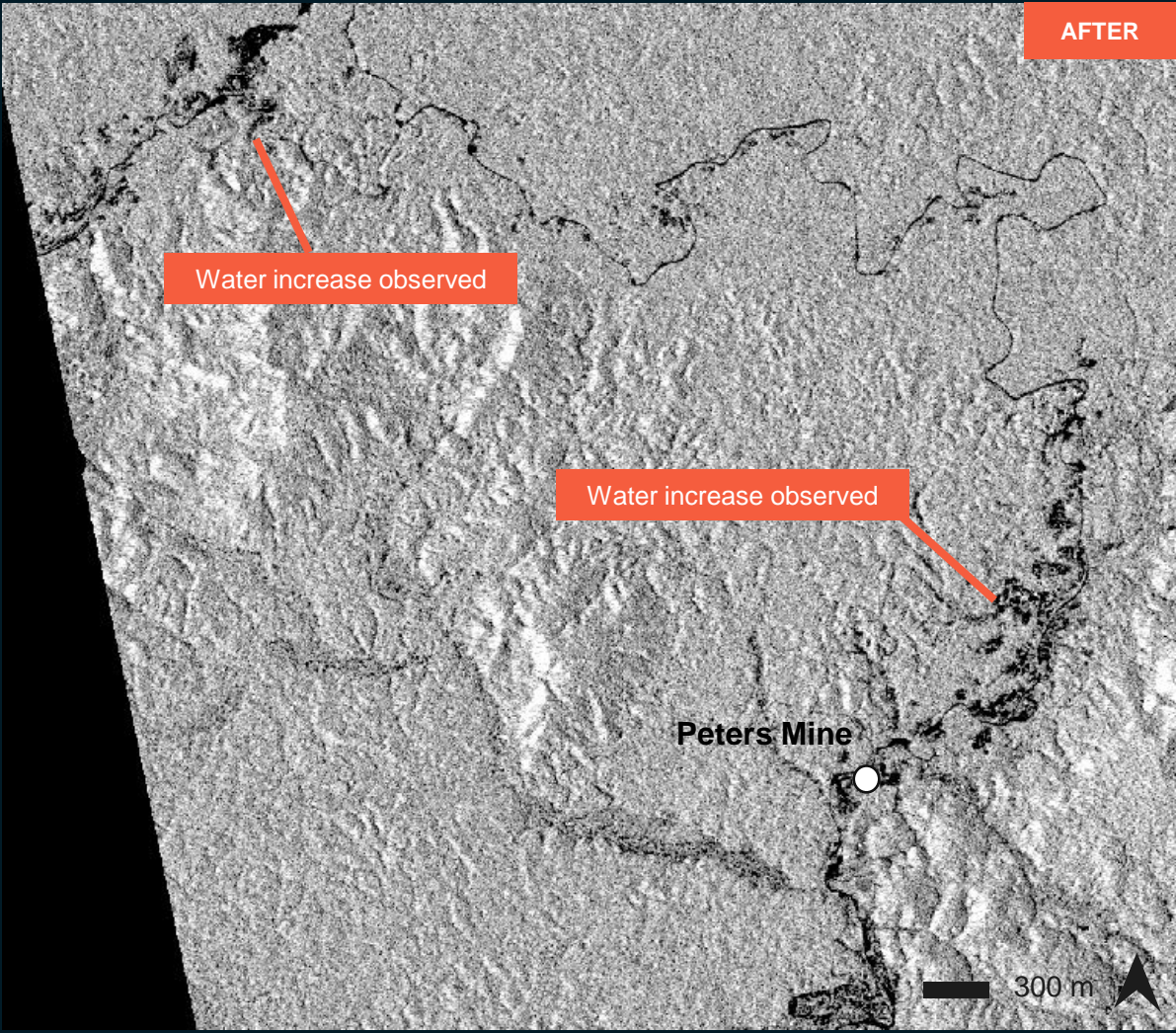
AOI 4-1 Region 7 / Cuyuni-Mazaruni

Floods observed upstream of Peters Mine hamlet

Image center:
59°24'33.968"W
6°16'50.952"N



Sentinel-1 / 1 May 2021



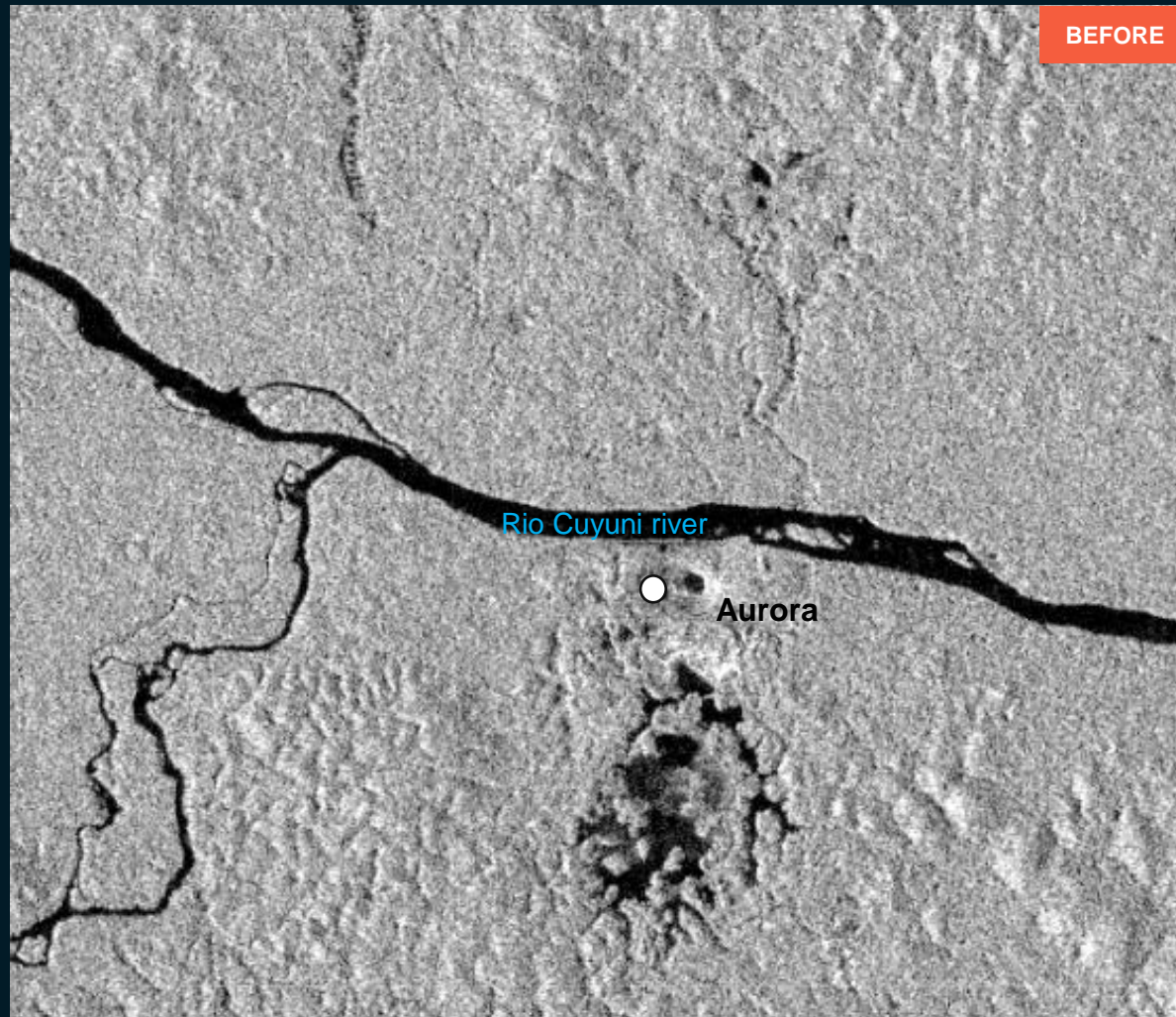
Sentinel-1 / 6 June 2021

AOI 4-2 Region 7 / Cuyuni-Mazaruni

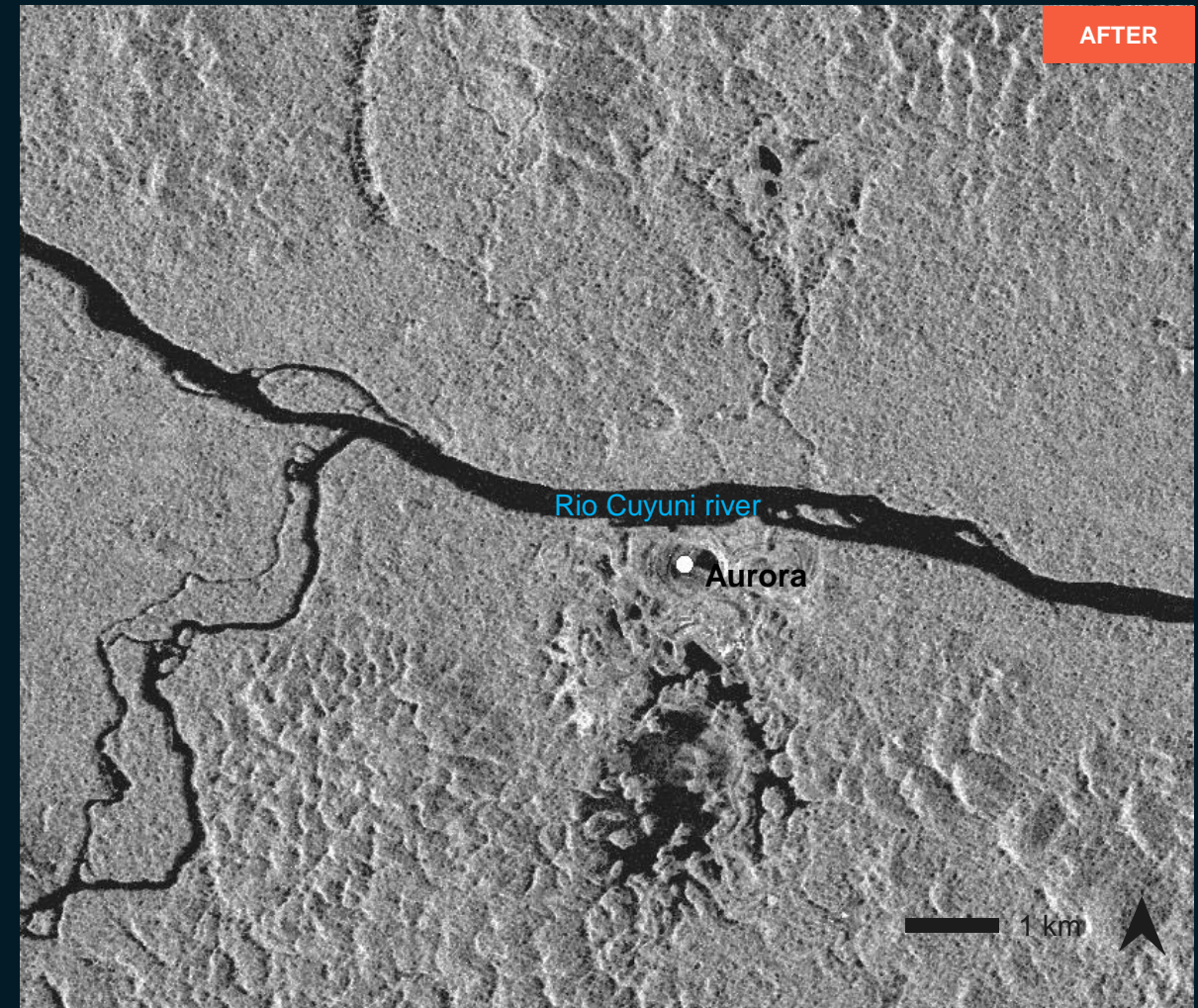
Image center:
59°45'47.376"W
6°47'59.959"N



No floods observed along the Rio Cuyuni river



Sentinel-1 / 6 May 2021



RCM-2/ 8 June 2021

SUMMARY OF FINDINGS

- Inundated agricultural fields observed in the coastal Regions (2, 3, 4 & 5) north-east of Guyana as of 06 June 2021;
- Increased water level of the Moruka river, Pomeroon-Supenaam (Region 2) as of 06 June 2021;
- Potentially affected structures observed along the Berbice river in Kwakwani town, Upper Demerara-Berbice Region as of 06 June 2021;
- No floods observed along the Demerara and the Rio Cuyuni rivers, Regions 7 & 10 as of 08 June 2021;
- Floods observed upstream of Peters Mine hamlet, Cuyuni-Mazaruni Region as of 06 June 2021.

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Data sources:

(1) Satellite Image (Post-event)

Sentinel-1 & Sentinel-2 / 06 June 2021

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Source: ESA

TerraSAR-X / 08 June 2021

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Source: DLR

RCM-2 / 08 June 2021

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Source: CSA / RCM-2

(2) Satellite Image (Pre-event)

Sentinel-1 / 01 and 06 May 2021 & Sentinel-2 / 18 Mar 2021

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Source: ESA

ESRI Basemap

(3) Ancillary data

Administrative boundaries: Guyana Lands and Surveys Commission, HDX

Populated places: OpenStreetMap

Waterways: OpenStreetMap

Analysis: UNITAR-UNOSAT

Production: UNITAR-UNOSAT



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