


29 Sep 2021

# PRELIMINARY SATELLITE- DERIVED FLOOD ASSESSMENT



Chaiyaphum Province, Thailand

 Status: Increased water level and inundated structures and agriculture areas observed

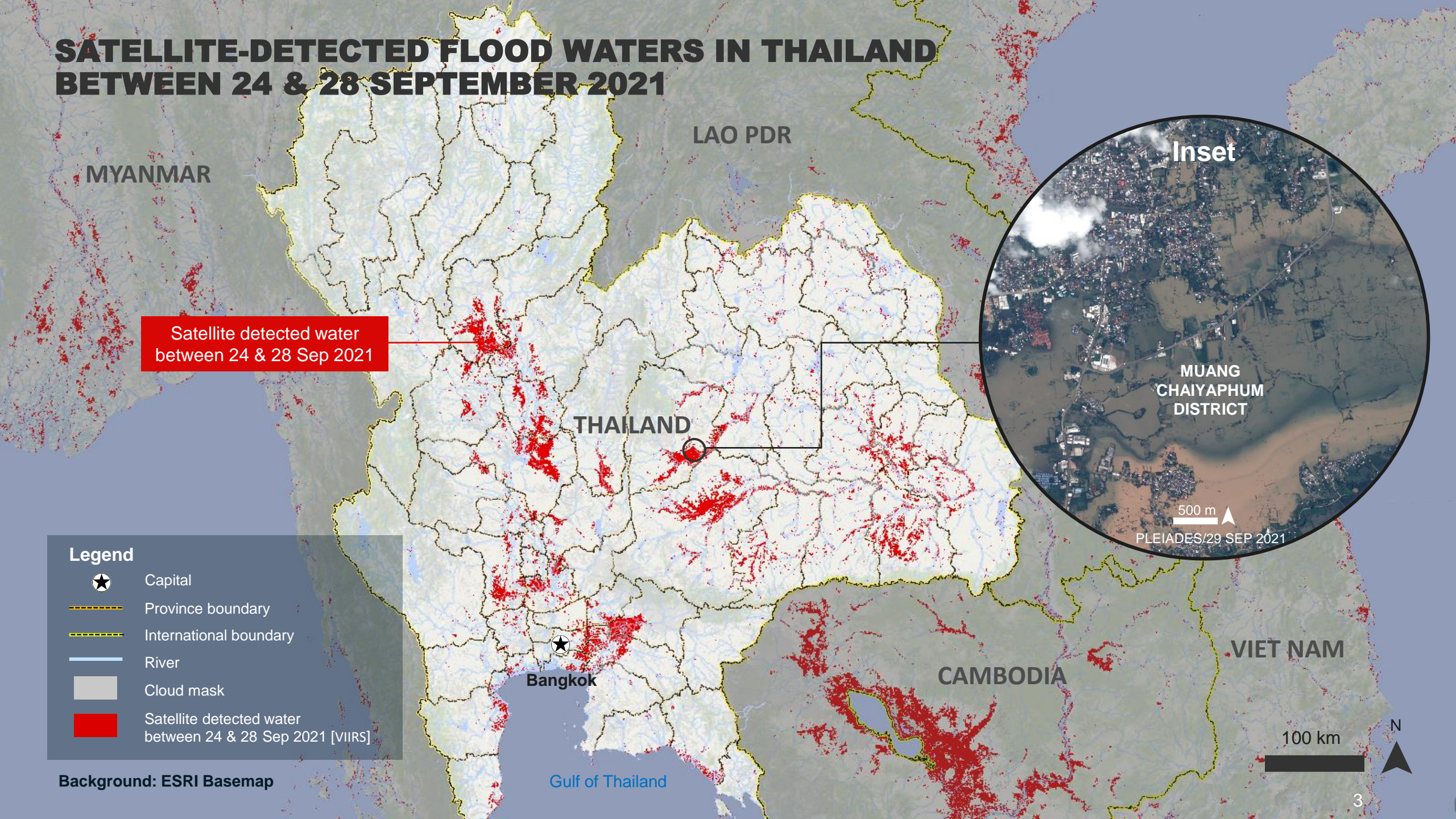
 Further action(s): continue monitoring

# CHAIYAPHUM PROVINCE, THAILAND





# SATELLITE-DETECTED FLOOD WATERS IN THAILAND BETWEEN 24 & 28 SEPTEMBER 2021



Satellite detected water  
between 24 & 28 Sep 2021

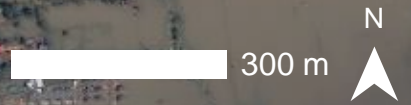
**Legend**


- ★ Capital
- Province boundary
- International boundary
- River
- ☐ Cloud mask
- ☐ Satellite detected water between 24 & 28 Sep 2021 [VIIRS]

Background: ESRI Basemap




# AOI 1- NAI MUEANG SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT




Inundated road 


Inundated road 

Muang Paya Lae Wittaya School 

Overflow evidence along the irrigation

Inundated agricultural area 

Inundated road 

Inundated road 

Robinson Lifestyle

Bus Terminal No.2

Inundated road 

Pleiades image acquired on 29 September 2021  
Image Center : 102°27.225'E 15°47'38.537"N



# AOI 1-1 NAI MUEANG SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°1'43.111"E  
15°47'47.895"N



ESRI Basemap



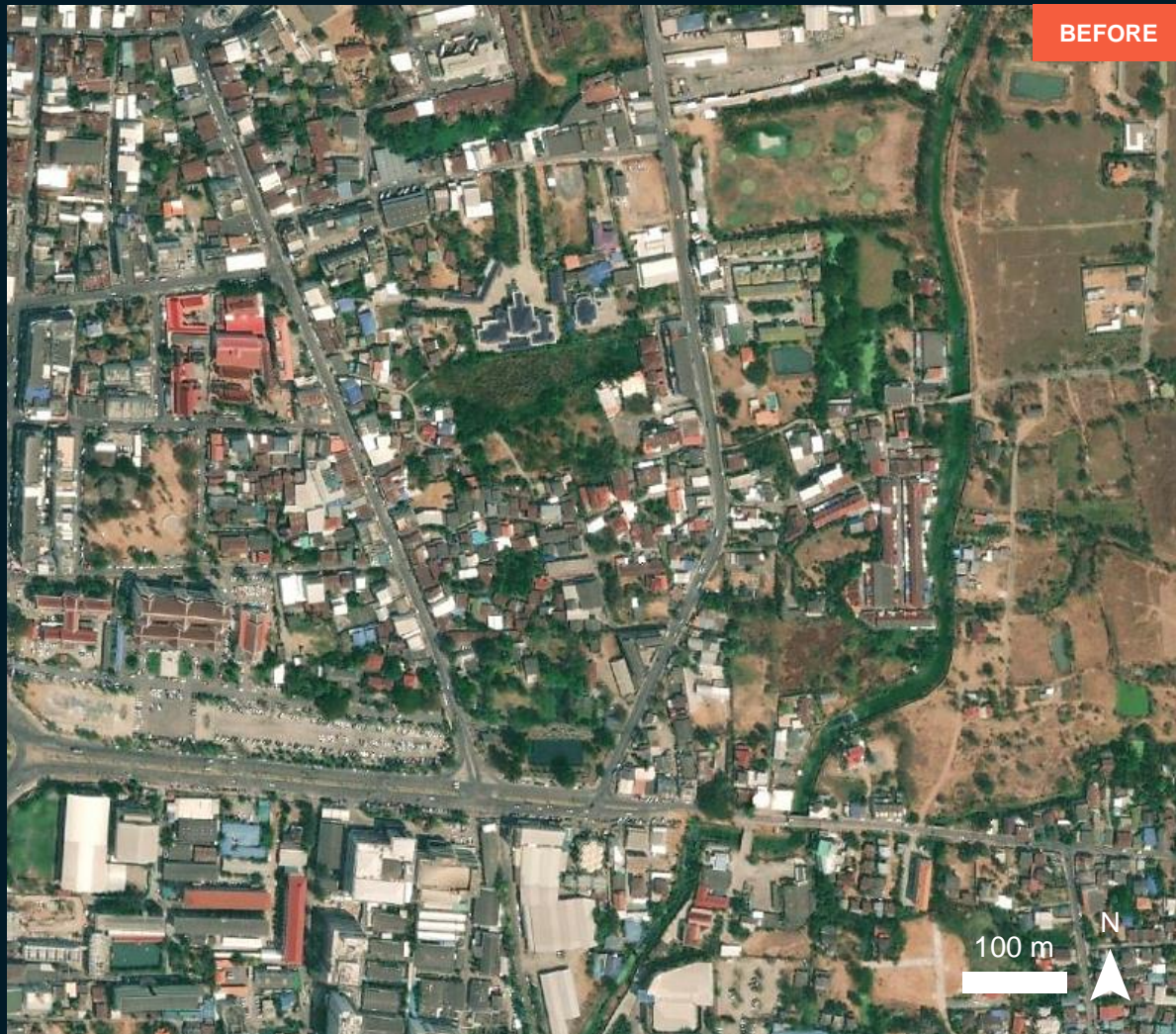
Pleiades /29 Sep 2021



# AOI 1-2 NAI MUEANG SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°2'11.908"E  
15°48'30.889"N



ESRI Basemap



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# AOI 2- NAI MUEANG AND PHON THONG SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT



Chaiyaphum Provincial  
Public Health Office

Inundated agricultural area



Phon Thong  
Pittaya School



Overflow evidence  
along the irrigation



Inundated  
agricultural area



Inundated  
agricultural area





# AOI 2-1 PHON THONG SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°4'18.969"E  
15°48'56.958"N



ESRI Basemap





Pleiades /29 Sep 2021




# AOI 3- CHILONG AND NONG NA SAENG SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT




Inundated agricultural area 

Inundated buildings 


Inundated agricultural area 



Inundated road 

Chi Rong Canal

Wat Nong Samong

Inundated agricultural area 

Wat Chai Sri Som Saard

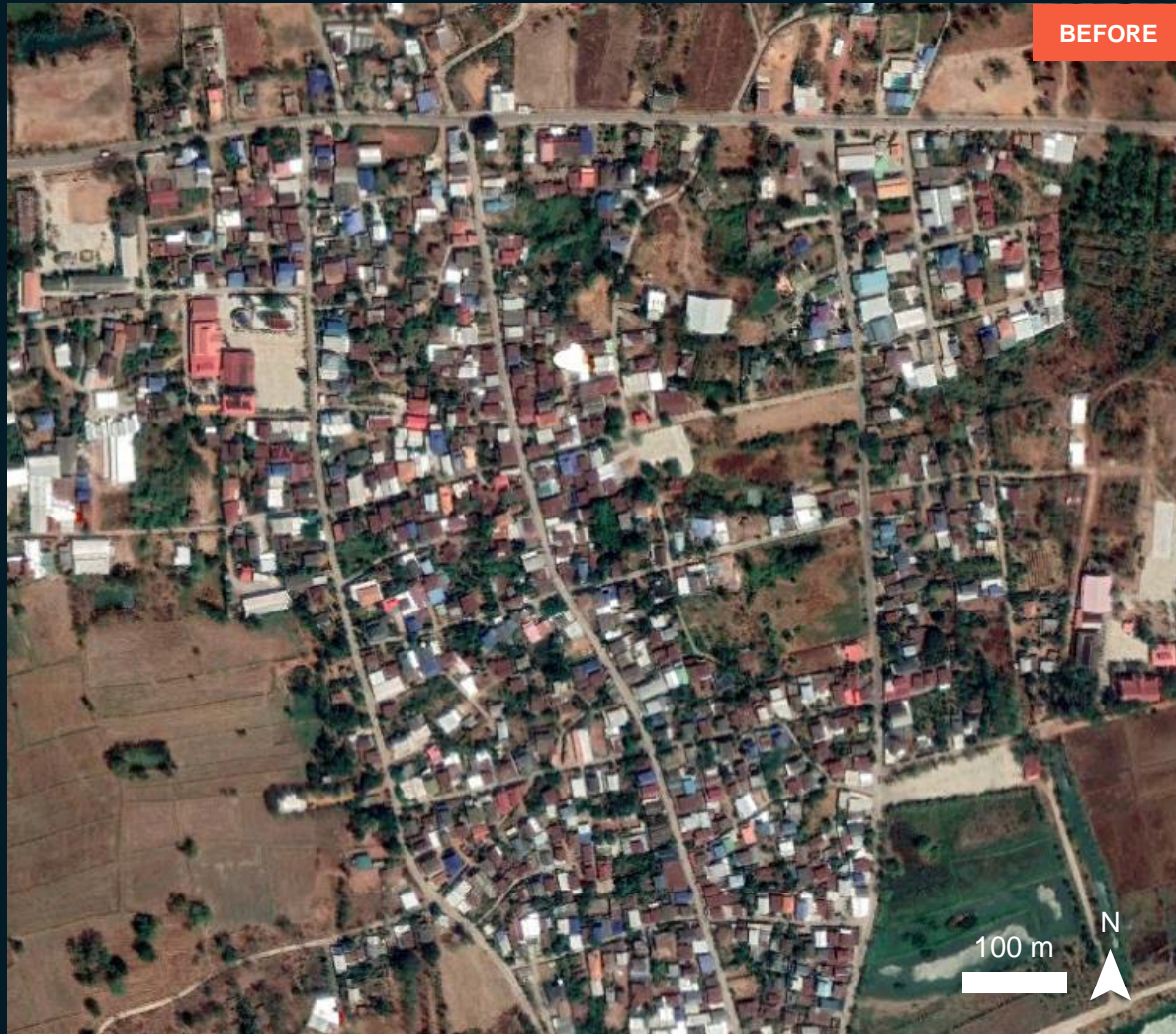
Inundated buildings 



# AOI 3-1 NONG NA SAENG SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°0'21.357"E  
15°45'47.697"N



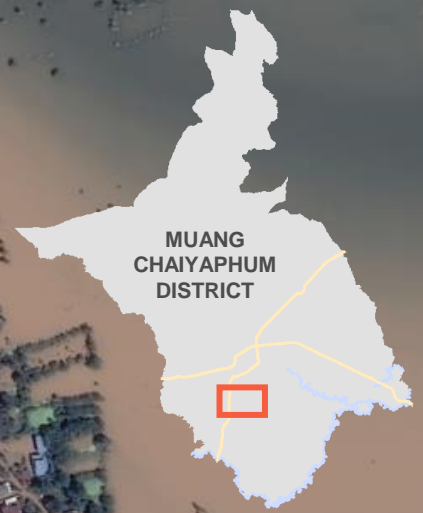
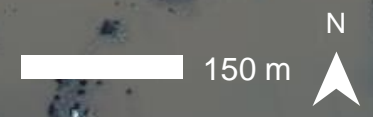
ESRI Basemap




Pleiades /29 Sep 2021




# AOI 4- BUNG KHLA SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT




Makro Chaiyaphum

 Inundated agricultural area

 Inundated road


 Inundated buildings

 Inundated road

 Inundated agricultural area

 Inundated road

 Inundated road

 Inundated agricultural area



# AOI 4-1 BUNG KHLA SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°2'20.154"E  
15°46'18.997"N



ESRI Basemap



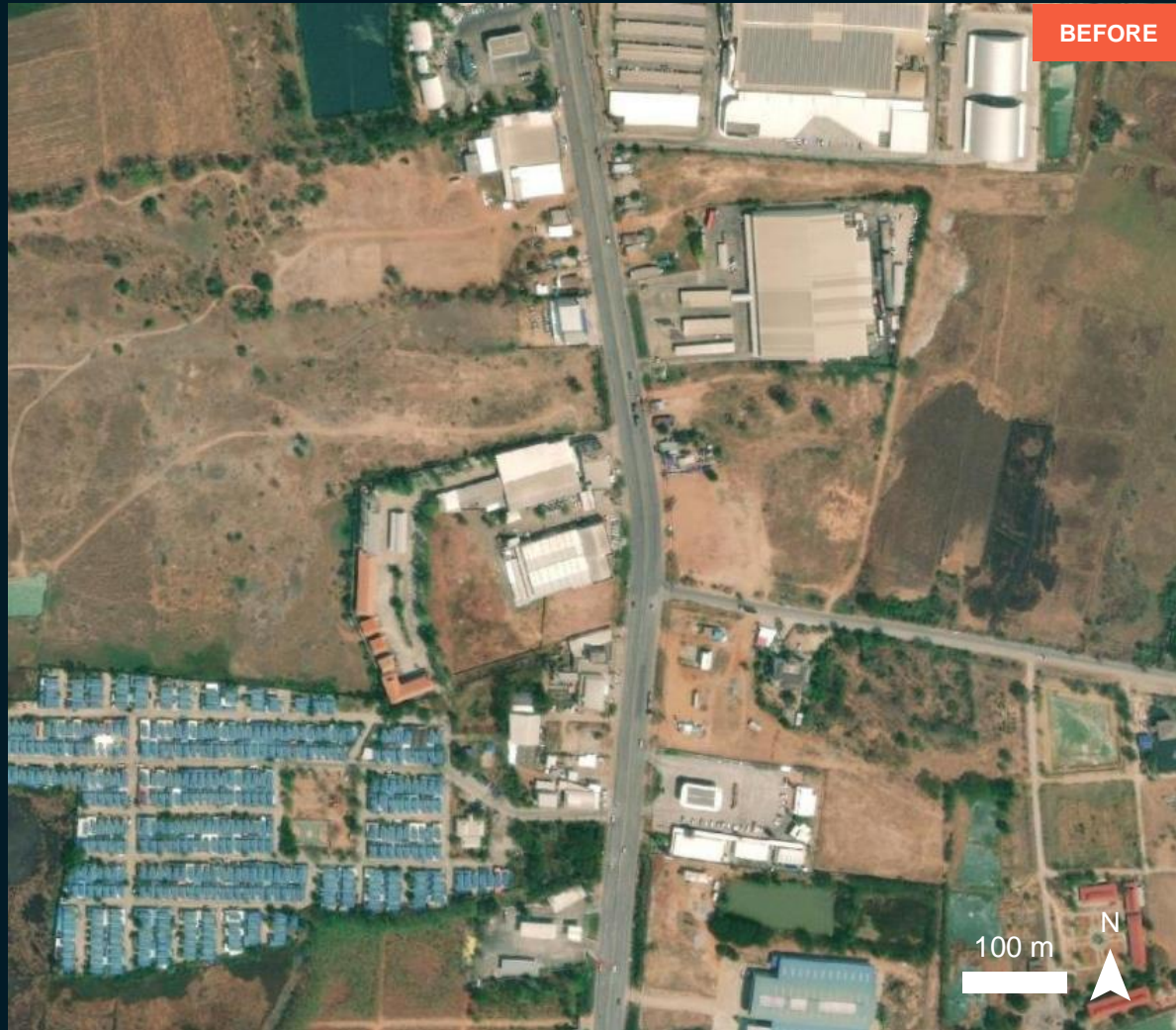
Pleiades /29 Sep 2021



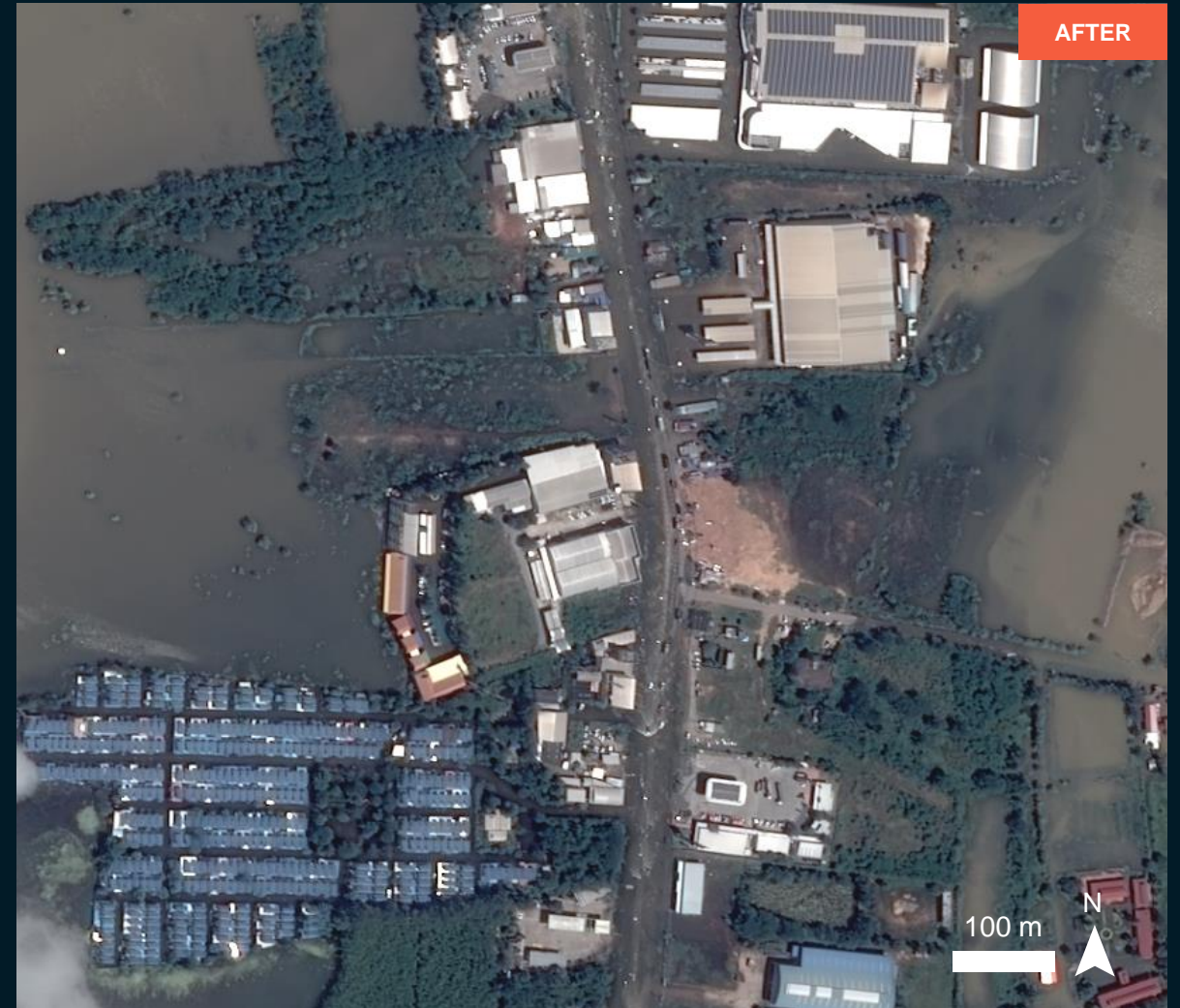
# AOI 4-2 CHILONG AND NONG NA SAENG SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°1'32.929"E  
15°46'27.927"N



ESRI Basemap




Pleiades /29 Sep 2021




# AOI 5- BUNG KHLA SUB-DISTRICT, MUANG CHAIYAPHUM DISTRICT




Inundated agricultural area 

Wat Pho Chai


Potentially inundated buildings 


Inundated road 

Overflow evidence along the irrigation 

Lua Canal

Inundated road 

Inundated agricultural area 

Potentially inundated buildings 

Pleiades image acquired on 29 September 2021  
Image Center : 15°46'15.9"N 102°04'11.0"E

Nong Sam Pan



# AOI 5-1 BUNG KHLA SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°3'34.413"E  
15°46'19.824"N



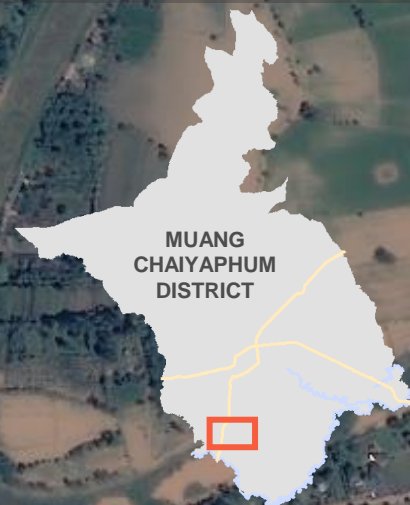
ESRI Basemap



Pleiades /29 Sep 2021



# AOI 6- BUNG KHLA AND NONG NA SAENG SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT



Inundated road

Inundated agricultural area

Overflow evidence along the irrigation

Home Pro Chaiyaphum

Lua Canal

Inundated road

Inundated road

Inundated road

Wat Sing Thong

Inundated agricultural area

Potentially inundated buildings

Pleiades image acquired on 29 September 2021  
Image Center : 102°2'2.25"E 15°45'14.023"N



# AOI 6-1 NONG NA SAENG SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°1'31.782"E  
15°45'10.35"N



ESRI Basemap



Pleiades /29 Sep 2021



# AOI 6-2 BUNG KHLA SUB-DISTRICTS, MUANG CHAIYAPHUM DISTRICT

Inundated structures and roads observed

Image center:  
102°2'17.051"E  
15°45'2.975"N



ESRI Basemap



Pleiades /29 Sep 2021



# SUMMARY OF FINDINGS

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- Increased water level and widespread inundated agricultural areas observed near the river and canal in Muang Chaiyaphum district as of 29 Sep 2021
- Inundated roads and buildings observed in all AOIs in Muang Chaiyaphum district as of 29 Sep 2021
- Overflow evidence along the irrigation canals observed in all AOIs in Muang Chaiyaphum district as of 29 Sep 2021



# COPYRIGHTS AND SOURCES

## Data sources:

### (1) Satellite Image (Post-event)

Pleiades / 29 September 2021 / 10:42 local time  
Copyright: CNES (2021), distribution Airbus D&S  
Source : Airbus DS

NOAA-20 (VIIRS) / Between 24 & 28 September 2021  
Resolution: 375m  
Copyright: NOAA/Suomi NPP  
Source: NOAA

### (2) Satellite Image (Pre-event)

ESRI Basemap

### (3) Ancillary data

Administrative boundaries: Royal Thai Survey Department  
Road : Open Street Map  
Waterways: Open Street Map

Analysis: United Nations Satellite Centre (UNOSAT)  
Production: United Nations Satellite Centre (UNOSAT)



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