


2 September 2024

PRELIMINARY SATELLITE- DERIVED IMPACT ASSESSMENT ON HEALTH FACILITIES



Arbaat Dam, Al Ganap Locality and Port Sudan,
Red Sea State, Sudan

 Status: Affected structures detected

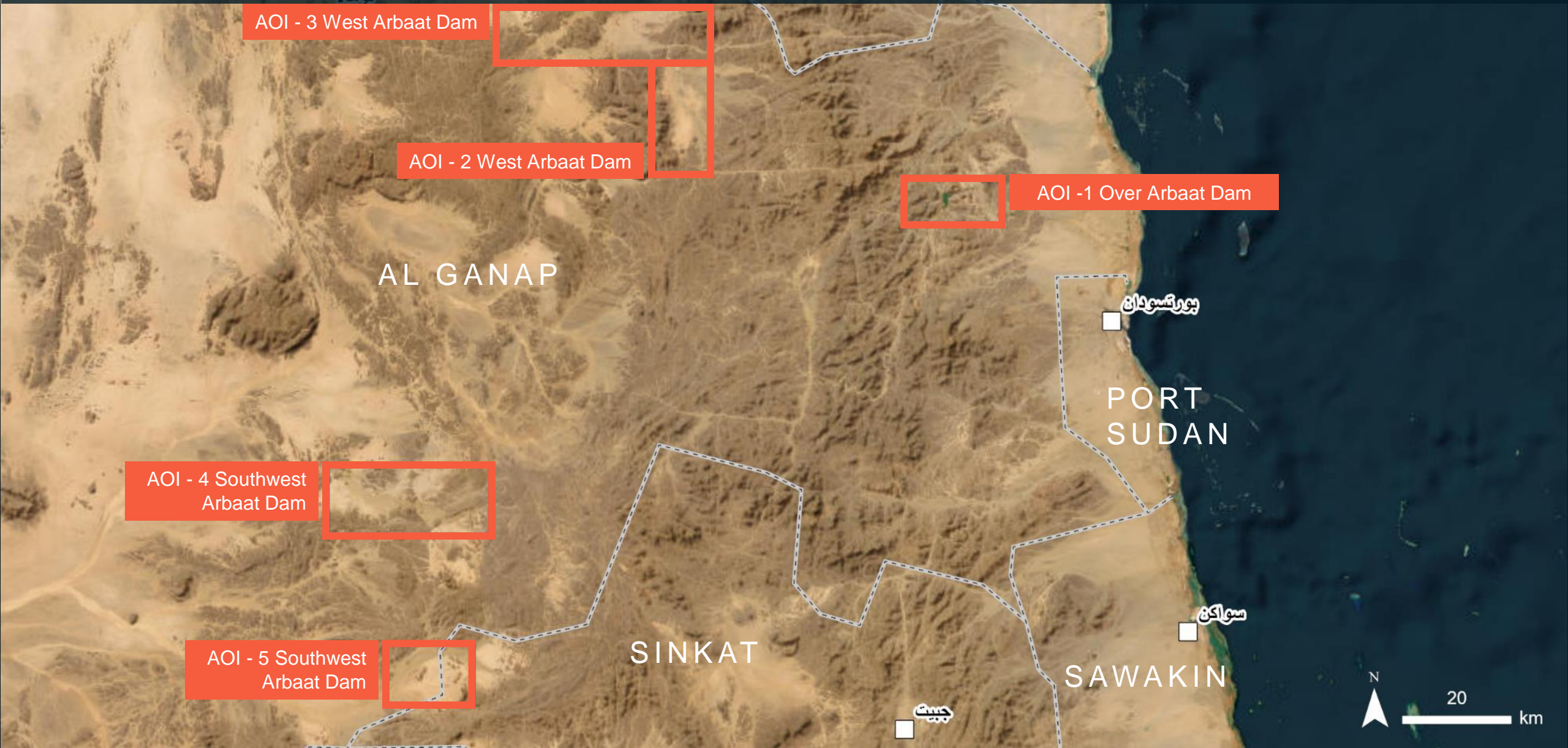
 Further action(s): continue monitoring

Sudan

2 September 2024



FIVE AREAS OF INTEREST IN AL GANAP AND PORT SUDAN



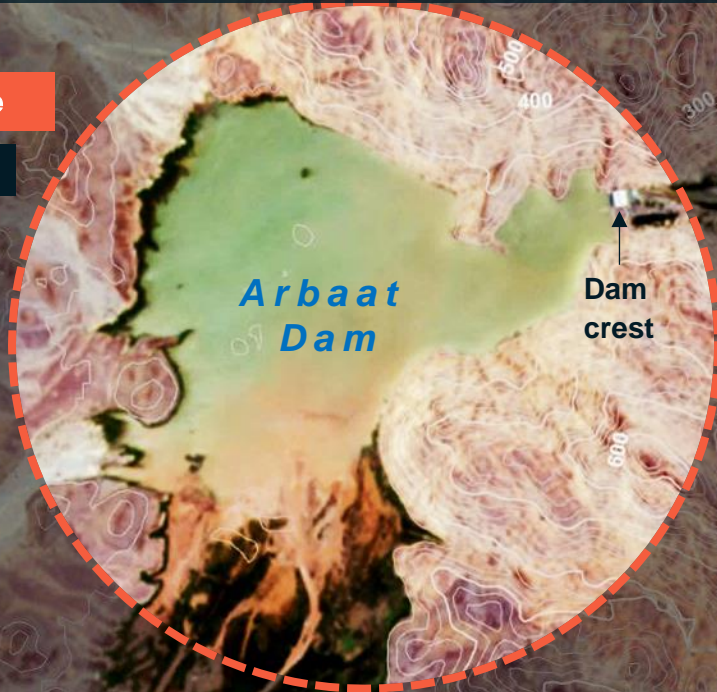
AOI1-ARBAAT DAM, AL GANAB LOCALLITY, RED SEA STATE

Notable reduction of water levels in Arbaat Dam



Before

Sentinel-2/ 16 Aug. 2024



After

Sentinel-2/ 31 Aug. 2024



Sentinel-2 image acquired on 16 and 31 August 2024, 08:14 UTC
Arbaat Dam Location: 36°55'36"E 19°49'54"N



AOI2-1 WEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow, Tedrbai (Family Health Unit) Potentially Affected



AOI2-2 WEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE



Overflow, Abunqarah (Family Health Unit) No Visible Impact



Inset

Abunqarah
(Family Health Unit)
No Visible Impact



Overflow evidence

Overflow evidence

Overflow evidence

Overflow evidence

Flow Direction



AOI3-1 WEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow, Kdoweeb (Family Health Unit) No Visible Impact



Inset



**Kdoweeb
(Family Health Unit)
No Visible Impact**

Overflow evidence

Flow Direction
←

Overflow evidence



Pleiades image acquired on 31 August 2024, 08:12 UTC
Image center: 36°24'9"E 20°5'28"N

AOI3-2 WEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow, Hit Wasat (Family Health Unit) Potentially Affected



Inset



**Hit Wasat
(Family Health Unit)
Possibly affected**

Overflow evidence

Overflow evidence

Overflow evidence



AOI3-3 WEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow, Tamli (Family Health Unit) Potentially Affected



Inset

Increased water

Overflow evidence

Flooded structures

Tamli
(Family Health Unit)
Possibly affected




AOI4-1 SOUTHWEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow, Shalhout (Family Health Center) Potentially Affected



Overflow



Tedrbai
(Family Health Center)
No Visible Impact

Standing floodwater



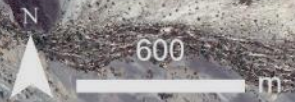
Shalhout (Family Health Center)
Possibly affected

Standing floodwater

Overflow evidence

Standing flood water

Overflow evidence



AOI4-2 SOUTHWEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE


Overflow, Mostehlil and Kelkoy (Family Health Center) Potentially Affected

AL GANAB



Standing floodwater

Overflow



**Mostehlil
(Family Health
Center) Possibly
affected**

Overflow

**Kelkoy
(Family Health
Center) Possibly
affected**





Pleiades image acquired on 31 August 2024, 08:12 UTC
Image center: 35°59'25"E 19°20'1"N

AOI4-3 SOUTHWEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow evidence



Overflow evidence

Overflow evidence

Inset


Flow Direction

Inset


**Tobler
(Family Health Unit)
No Visible Impact**

Inset

**Edbye
(Family Health Unit)
No Visible Impact**



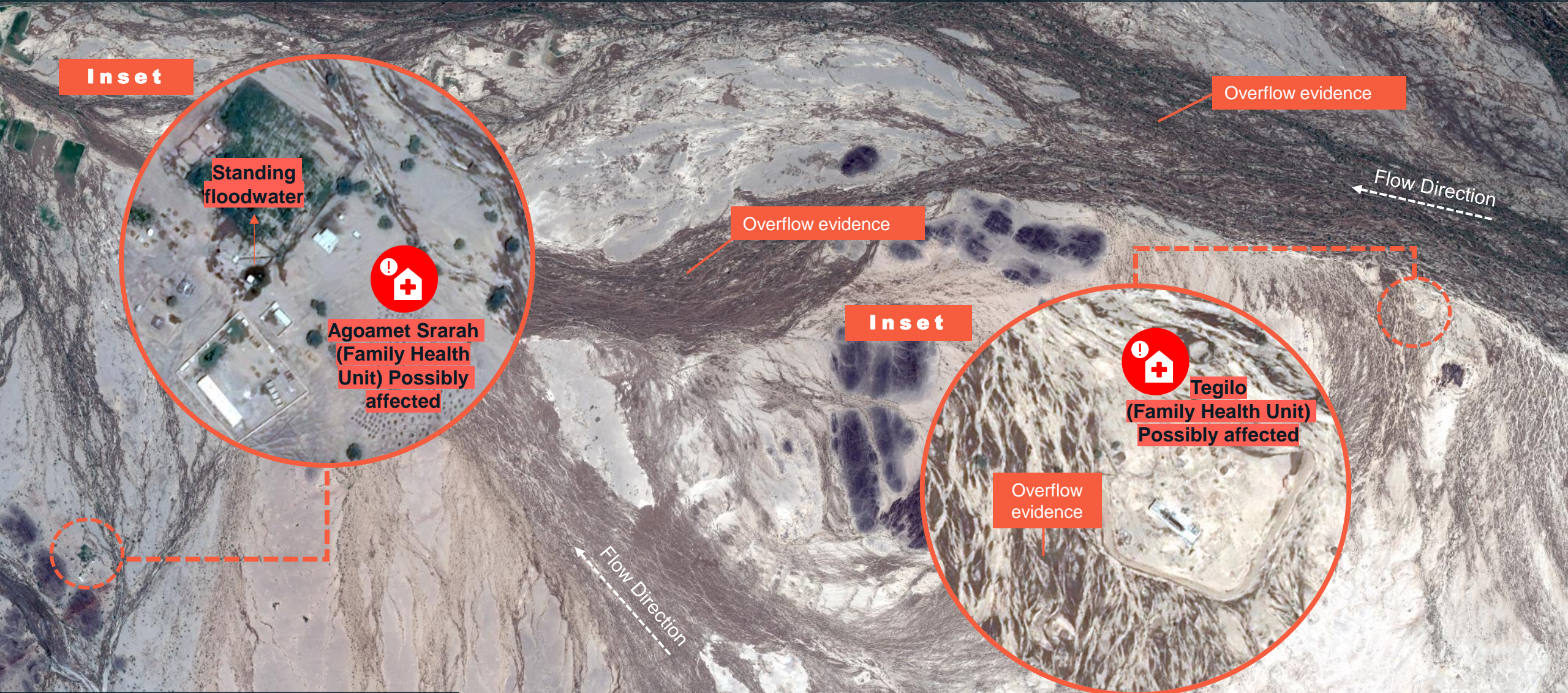
Overflow evidence

Flow Direction



AOI5- SOUTHWEST ARBAAT DAM, AL GANAB LOCALITY, RED SEA STATE

Overflow, Agoamet Srarah and Tegilo (Family Health Unit) Potentially Affected



SUMMARY OF FINDINGS

- Water levels have been notably reduced in the Arbaat Dam observed as of 31 August 2024;
- Flooded areas and overflow evidence observed along the waterway in Alganab locality as of 30 and 31 August 2024;
- Abunqarah, Kdoweeb, Tobler, Edbye Family Health Units, as well as Tedrbai Family Health Centers, appear to be unaffected by floodwaters.
- Tedrbai, Hit Wasat, Tamli, Agoamet Srarah, and Tegilo Family Health Units, as well as Kelkoy and Mostehliland Shalhout Family Health Centers, are likely affected by floodwaters.

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Data sources:

(1) Satellite Image (Post-event): Pléiades

Acquisition date : 30 August 2024 at 08:30 UTC and 31 August 2024 at 08:12 UTC

Resolution: 50cm

Copyright: Includes Pleiades material © CNES (2024), Distribution Airbus DS

Source: Airbus D&S

(2) Satellite Image Satellite (Post-event): : Sentinel-2

Imagery Dates: 19 August 2024 at 09:50 UTC

Resolution : 10 m

Copyright: Contains modified Copernicus Sentinel data (2024)

Source: ESA

(3) Satellite Image (Pre-event): Sentinel-2

Imagery Dates: 16 August 2024 at 08:14 UTC

Resolution : 10 m

Copyright: Contains modified Copernicus Sentinel data (2024)

Source: ESA

(3) Ancillary data

Administrative boundaries: UNOCHA

Health facilities: World Health Organisation

Populated place: OpenStreetMap

Waterway: OpenStreetMap

Road data: OpenStreetMap

Analysis: United Nations Satellite Centre (UNOSAT)

Production: United Nations Satellite Centre (UNOSAT)



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