CHAD

IMAGERY ANALYSIS: 13 TO 17 OCT. 2024 PUBLISHED 18/10/2024 V1

MAXIMUM FLOOD WATER EXTENT (13 OCT. - 17 OCT. 2024)	POPULATION POTENTIALLY EXPOSED (13 OCT. - 17 OCT. 2024)
~32,000km²	1,365,000

MAXIMUM FLOOD WATER EXTENT (02 OCT. - 06 OCT. 2024)	POPULATION POTENTIALLY EXPOSED (02 OCT. - 06 OCT. 2024)
~32,000km²	1,370,000

unitar United Nations Institute for Training and Research

UNOSAT United Nations Satellite Centre

FLOOD
FL20240820TCD

Satellite detected water extents between 13 and 17 October 2024 over Chad

This map illustrates cumulative satellite-detected water using VIIRS in Chad between 13 to 17 October 2024. Within the cloud free analysed areas of about 1,245,000 km², a total of about 32,000 km² of lands appear to be affected with flood waters. Maximum flood water extent appears to remain stable since the period between 02 to 06 October 2024. Based on Worldpop population data and the maximum flood water extent, about 1,365,000 people are potentially exposed or living close to flooded areas. Amongst which ~290,000 people in Mayo-Kebbi Est Region and ~215,000 people in Logone Oriental Region.

This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to the United Nations Satellite Centre (UNOSAT).

Region	Population in cloud free areas [13 October -17 October 2024]	Cloud free analysed Area [13 October -17 October 2024] Km²	Population potentially exposed to maximum flood water extent [13 October -17 October 2024]	Maximum flood water extent [13 October -17 October 2024] Km²	Maximum water extent variation between 13 October - 17 October 2024 & 02 October - 06 October 2024 Km²
Barh-El-Gazel	428'130	50'236	1'977	92	65
Batha	701'704	91'011	31'972	1'807	-145
Borkou	238'126	149'728	65	70	9
Chari-Baguirmi	792'999	46'760	77'260	3'257	-436
Ennedi Est	306'271	79'636	804	60	3
Ennedi Ouest	117'162	120'139	166	178	0
Guéra	793'194	61'032	6'790	839	-136
Hadjer-Lamis	701'656	28'827	47'262	1'080	574
Kanem	546'754	72'414	67	0	-
Lac	703'558	21'551	76'154	3'720	2'419
Logone Occidental	841'793	8'851	35'707	268	41
Logone Oriental	1'264'259	23'694	213'820	1'926	158
Mandoul	879'742	17'448	82'106	1'286	126
Mayo-Kebbi Est	1'080'678	18'113	291'121	4'497	-964
Mayo-Kebbi Ouest	765'379	12'393	16'440	109	26
Moyen-Chari	815'621	40'428	142'807	5'588	885
N'Djamena	1'364'910	403	95'591	27	-27
Ouaddaï	1'173'828	29'741	540	10	3
Salamat	424'434	67'945	31'713	3'416	-3'556
Sila	629'645	35'723	4'396	94	-137
Tandjilé	847'300	17'529	206'589	3'097	750
Tibesti	61'875	202'646	54	174	38
Wadi Fira	1'014'551	51'609	1'378	164	150
Total	16'493'568	1'247'855	1'364'778	31'758	-154

Legend

- Capital city
- Department with Observed Changes in Maximum Floodwaters ≥ 100 km². Comparison of 02-06 Oct. and 13-17
- Observed receding floodwaters ≥ 100 km²
- Observed increasing floodwaters ≥ 100 km²
- River
- International boundary
- Region boundary
- Department boundary
- Permanent water
- Cloud obstruction [13 Oct. - 17 Oct. 2024]
- Maximum flood water extent [13 Oct. - 17 Oct. 2024]
- Maximum flood water extent [02 Oct. - 06 Oct. 2024]

Map scale for A3: 1:3,000,000
0 25 50 100 km

Spatial Reference
Name: WGS 1984 UTM Zone 33N
PCS: WGS 1984 UTM Zone 33N
GCS: GCS WGS 1984
Datum: WGS 1984

Satellite Imagery (1): NOAA-20/VIIRS
Imagery Date: 13 to 17 October 2024
Resolution: 375m
Copyright: NOAA/Suomi NPP
Source: NOAA

Satellite Imagery (2): NOAA-20/VIIRS
Imagery Date: 02 to 06 October 2024
Resolution: 375m
Copyright: NOAA/Suomi NPP
Source: NOAA

Boundary data: UNOCHA
Waterways: OpenStreetMap
Road data: OpenStreetMap
Populated place: OpenStreetMap
Population data: Worldpop unconstrained (2020)

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

The pixelwise water fraction from VIIRS, using a 5-day composite at 375 m spatial resolution, indicates potential floodwater coverage ranging from 0% to 100%. This large-scale analysis is intended for guidance purposes and has not yet been validated with ground truth data or higher-resolution analysis. The population exposure analysis is based on floodwaters observed only in cloud-free areas, so the total number of people exposed may be underestimated. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to the United Nations Satellite Centre (UNOSAT).

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