

Population Exposure Heavy Rains in Haiti April 2017

Prepared by
UNITAR-UNOSAT



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Geneva, Switzerland

UNOSAT Contact:
Email: unosat@unitar.org
T: +41 22 767 4020 (UNOSAT Operations)
24/7 hotline: +41 75 411 4998

Postal Address:
UNITAR – UNOSAT, IEH
Chemin des Anémones 11,
CH-1219, Genève, Suisse

Situation Overview

Heavy rains falling in Sud Department of Haiti, from the 20th to the 23rd of April, 2017, have resulted in flash floods. Many areas that are still recovering from the devastation left by Hurricane Matthew in October 2016 have been affected as well as some areas in Jamaica and Cuba.

According to the Directorate of Civil Protection (DCP) in Haiti, 2 fatalities occurred in Port-Salut and Camp Perrin. Due to the rise of waters on the coast and in places inside the towns, evacuations have been carried out in Port Salut where around 5,000 households were reportedly affected and in Maniche, where around 50 families have been displaced in temporary shelters in the national schools of Melon and Dory. Severe flooding was also reported in the city of Les Cayes.

In the coastal zone, traffic is interrupted due to the collapse of the Port Salut Bridge that connects the rest of the coast and the affection of some sections of roads particularly at Arniquet, Port Salut, Port a Piment and Saint Jean du Sud. Damage to agricultural and livestock have been also reported over areas already previously affected by Hurricane Matthew early October 2016 ([FloodList](#)).

This report provides a population per estimated rainfall anomalies zones analysis over Haiti. The analysis was conducted according to the estimated precipitation accumulation data derived from the Global Precipitation Measurement (GPM) dataset of the last five days (20th to the 24th of April, 2017) at a spatial resolution of approximately 10km. The population data was derived from WorldPop.

According to our analysis daily average precipitation levels over the last five days reached over 54 mm, which exceeds April's daily average precipitation levels of 4.4 mm according to [The World Bank Group](#). Approximately 10.250,000 people in Haiti may be exposed to above average rainfall anomalies, from which ~750,000 people are located in Sud Department.

Population per Rainfall Anomalies Zones from 20 to 24 April 2017 in Haiti

The following table provides a population per rainfall anomalies zones analysis (below and above the average rainfall) over Haiti for the period from 20 to 24 April 2017. This estimates were derived from the Global Precipitation Measurement (GPM) dataset at a spatial resolution of approximately 10km. UNITAR-UNOSAT compared average rainfall between 20 to 24 April (mm/day) with average rainfall in April (~4.4 mm/day), reported by The World Bank Group using a data series from 1991 to 2015.



10,687,350

Total population of Haiti



410,985

Total population living in zones recording daily rainfall below the average



10,276,365

Total population living in zones recording daily rainfall above the average

Department	Population per Rainfall Anomalies Zone		Total
	Below average	Above average	
Ouest		3,934,673	3,934,673
Artibonite	47,578	1,643,192	1,690,770
Nord		1,047,908	1,047,908
Sud		758,387	758,387
Centre		736,577	736,577
Nord Ouest	363,407	343,843	707,249
Sud-Est		622,677	622,677
Grande Anse		464,089	464,089
Nord Est		392,832	392,832
Nippes		332,187	332,187
Total	410,985	10,276,365	10,687,350

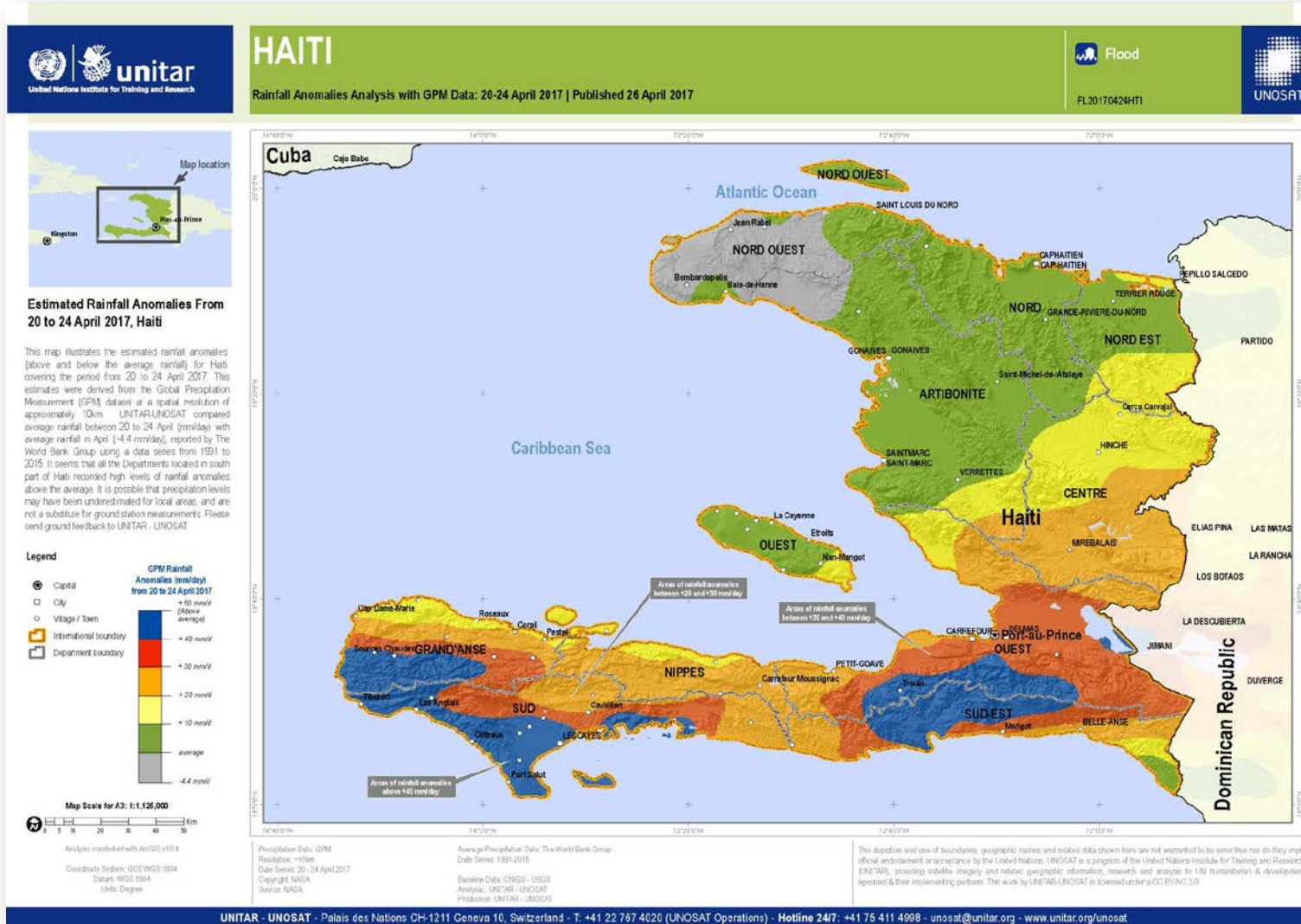
The population exposure, summarized by Department, has been calculated using a 100 m resolution WorldPoP dataset.

This is a preliminary analysis & has not yet been validated in the field. Download the complete excel table of the population per rainfall anomalies zones [here](#).

Population per Rainfall Anomalies Zones from 20 to 24 April 2017 in Sud Department

The following table provides a population per rainfall anomalies zones analysis in Sud Department, Haiti, for the period from 20 to 24 April 2017. It seems that all the communes of the Department are exposed to daily rainfall anomalies above the daily average rainfall in April (~4.4 mm/day). The most exposed communes are: Les Cayes, Aquin, Torbeck, St. Louis du Sud and Maniche.

Commune	Population Within Above Average Rainfall Anomalies Zones in Sud Department
Les Cayes	113,428
Aquin	104,274
Torbeck	70,687
St. Louis du Sud	62,870
Maniche	54,464
Cavaillon	47,954
Camp Perrin	44,929
Chantal	36,080
Les Anglais	29,075
Arniquet	28,478
Chardonnières	26,667
Port-Salut	23,083
Tiburon	22,550
Coteaux	22,365
St. Jean du Sud	22,365
Roche-A-Bateau	17,093
Port-a-Piment	16,997
Ile A Vache	15,027
Grand Total	758,387



The map is available to download [here](#).

The depiction and use of boundaries, geographic names and related data shown here are not warranted to be error-free nor do they imply official endorsement or acceptance by the United Nations. UNOSAT is a program of the United Nations Institute for Training and Research (UNITAR), providing satellite imagery and related geographic information, research and analysis to UN humanitarian & development agencies & their implementing partners. This work by UNITAR-UNOSAT is licensed under a CC BY-NC 3.0.

The analysis has not been verified in the field yet; please send your comments and feedback to unosat@unitar.org.

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