

HAITI

Hurricane Matthew Category: 4 Saffir-Simpson



Key findings

	Not required	Low	Moderate	Significant	Major
Need for international assistance				X	
Expected impact	Very low	Low	Moderate	Significant	Major
				X	

Crisis overview

Category 4 Hurricane Matthew struck the southwest coast of Haiti at 0700 local time (1200 GMT) on 4 October. Wind speeds of 230km/h were recorded, and caused widespread damage, flooding, and displacement. It continued across the northwest of the country (UNOSAT 5/10/2016).

Over 1.24 million people are affected in the departments of Grand Anse (468,000 people) and South (775,000) alone, including 522,000 children (UNICEF 04/10/2016). 350,000 are presently estimated to be in need of assistance (OCHA 4/10/2016). 14,530 people have been displaced so far, some voluntarily (Alter Press 5/10/2016). 6,000 people were evacuated in South department and approximately 18,000 from Grand-Anse (UNICEF 4/10/2016).

The government has issued a Red Alert and officially requested UN assistance (OCHA 4/10/2016).

Flood-affected people were evacuated in the districts of Port-Salut and Port-a-Piment, Grande Anse department; many of those who remained at home died. The city of Les Cayes, in Grand Anse, has been totally inundated. At least two people have died in Haiti and four in the Dominican Republic. The death toll is expected to rise (BBC 5/10/2016).

A pre-crisis breakdown of the affected population estimated 213,800 to be affected by wind speeds of up to 120km/h, 793,000 by up to 90km/h and 8.8 million by up to 60km/h. The West department is expected to be worst affected, with nearly 91,000 to be impacted by wind speeds up to 120 km/hr (UNOSAT 5/10/2016).

Anticipated scope and scale

Hurricane Matthew struck on 4 October. 350,000 people require humanitarian assistance, and 14,530 have been displaced. Reported death toll is currently six.

South, South-Est, Grande Anse, Nippes, North West, and West departments are the most affected.

It is expected that flooding will exacerbate pre-existing epidemics such as cholera, dengue fever, and Zika.

Priorities for humanitarian intervention

- Shelter
- WASH
- Health

Humanitarian constraints

Port-au-Prince airport is closed and is expected to open on 6 October at 6 Am local time. There is considerable bridge damage and access issues in the southern departments, and significant issues with telecommunications and electricity access.

Limitations

- Detailed sectoral information.
- Information on the impact of the hurricane on food security and protection is lacking.
- Updates on the humanitarian access issues to affected areas are lacking.

Operational constraints

Crisis impact

Port-au-Prince: The airport is closed on 5 October. It is uncertain whether the airport will reopen on 6 October (Vant Bef Info 04/10/2016). The bridge in Croix des Missions has been cut to both cars and pedestrians. (Haiti Libre 04/10/2016) A high voltage cable has fallen onto the Rue Fleury Bathier in Port-au-Prince. (Haiti Libre 04/10/2016). There is reportedly no electricity available in Port-au-Prince (Haiti Libre 04/10/2016). Distribution of non-food items was possible from the beginning of the crisis in some areas in Port-au-Prince (CARE 05/10/2016).

West departement: Damage to electricity pylons is reported in West department (Alterpresse 04/10/2016). The *route de Laboule* in West department has been cut due to a tree that fell, causing traffic jams in the area. (Haiti Libre 04/10/2016) The Island of Gonave, in the West department, is reportedly inaccessible (CARE 05/10/2016).

South departement: The bridge leading to Route Nationale 2, the only access to the south from Port-au-Prince, is down (UNICEF 04/10/2016). There are unconfirmed reports that the Ladigue bridge has collapsed; this bridge connects the departements of Nippes, Grande-Anse and South to the rest of Haiti (Humanity Road 05/10/2016).

Road access to Anse Milieu, in the South department has been cut off by road access (ACT Alliance 05/10/2016). Landslide has caused a breakage of traffic in Anse Milieu, on the Route Les Anglais and Tiburon. (Haiti Libre 04/10/2016)

In Coteaux, in South department, floods are reported on the Boulevard Saint-Pierre. (Haiti Libre 04/10/2016). There is reportedly no electricity available in the South department. (Haiti Libre 04/10/2016) Communication problems due to problems with the Digicel network were reported in the communes of Les Cayes, in the South department and Jeremie, in the Grande Anse department (Humanity Road 04/10/2016).

South-East departement: The road to Jacmel, in South-Est, has reportedly been damaged. A power outage is reported and the telephone service is poor. (OCHA 05/10/2016)

Lessons learned

- Roads were reported to be blocked by protestors shortly after the 2010 earthquake – burning tyres prevented access on the road between Port-au-Prince and Carrefour – an area in West department, about 15km from Port-au-Prince and therefore likely to strongly rely on that road for aid delivery (RFI 03/10/2016).
- Humanitarian access was reportedly difficult in mountain areas after the earthquake, which are relatively far away from cities (Deseret News 25/05/2011).
- There are many reports of bad road conditions, and there are many non-crime related security issues, especially outside daylight hours in rural areas. (OSAC 03/01/2016)
- Monitoring and cross-sectoral synergy among interventions in targeted communes will allow for better prioritisation and resource mobilisation (UNICEF 2014).
- Shared information permits more rational use of limited logistics capabilities (ACF 19/03/2009).
- GPS use in early assessments is highly recommended (ACF 19/03/2009).
- High population density can be leveraged to facilitate distribution operations (water, food, NFI) (ACF 19/03/2009).

Shelter

Crisis impact

234 shelters have been opened across the country, including 186 temporary shelters across the south. The 18,000 people evacuated in Port-Salut and Port-a-Piment, South departement, have shelter needs, as do 6,000 people from South departement. An estimated 14,530 in total have been displaced so far, some voluntarily. 1,885 houses have been flooded (Haiti Libre 5/10/2016; Alter Press 5/10/2016)

Pre-crisis

The majority of rural and urban housing consist of two-room houses made of mud walls and floors. Roofs are often thatched with grasses or palm leaves but may also be made of plastic or corrugated metal. Windows are panel-less and covered with wooden shutters. Housing in slums is makeshift. Professionally constructed buildings suffer from lax enforcement of zoning and safety rules (Encyclopaedia Britannica 09/2016).

38% of Haitian households have electricity, including 72% in urban areas, 50% in camps, and 15% in rural areas (DHS 2012). Hurricane affected areas were largely rural. 55% of homes have earth floors, 35% clay or sand, and 6% have ceramic or mosaic tiles (DHS 2012).

Many areas, particularly around Les Cayes, in South department, as well as on the northern coast of Nippes department, are vulnerable to flooding (Haiti ICT 2016).

All 55,107 IDPs living in camps in Haiti, as of September 2016, were in West department (IOM 27/09/2016)

Lessons learned

- Adaptability is important in post-earthquake reconstruction; best practices include holding beneficiary surveys and midterm reviews, as well as a large contingency budget.
- Adding a veranda with rainwater catchment system to reconstructed homes was also found to be useful (IFRC 2012).
- Avoid the creation of collective housing if possible; they can lead to conflicts between different camp committees, camp managers, service providers, and population as well as increase the risk of disease transmission and protection issues (IOM 04/2014).

Key documents

Comité Thématique Evacuation et Gestion des Abris Provisoires, April 2014, Reponse aux desastres : abris d'urgence, habitat, et regroupements
<http://www.iom.int/files/live/sites/iom/files/pbn/docs/Reponse-aux-desastres-Abris-durgence-habitat-et-regroupements.pdf>

DHS Program, 2012, Enquête Mortalité, Morbidité et Utilisation des Services,
<http://dhsprogram.com/publications/publication-FR273-DHS-Final-Reports.cfm>

Health

Crisis impact

Existing disease in the region, particularly cholera, is likely to spread further, as infrastructure damage and contamination of water sources by rainfall and flooding facilitate transmission (UNICEF 04/10/2016). On 3 October, cholera has been reported in Randel (Port-à-Piment, South department) and has led to five deaths in the community and one in hospital (UNICEF 04/10/2016).

Zika and dengue are also prevalent in hurricane-affected areas, and likely to be exacerbated by the hurricane and associated heavy rainfall and flooding (UNICEF 04/10/2016). Zika response strategies will also be impacted by the storm (UNICEF 04/10/2016).

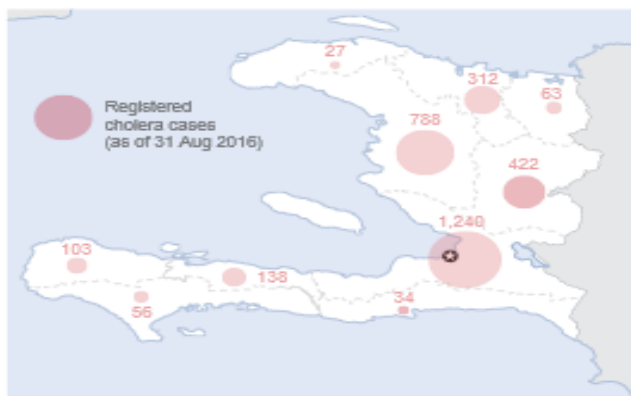
In Port-au-Prince, emergency health kits are needed (HaitiLibre 04/10/2016).

In Port-Salut (75,000 inhabitants in the district) and Port-à-Piment (19,000 inhabitants in the commune) flood victims were evacuated. It is estimated that flood victims who did not leave their home died (UNICEF 04/10/2016).

Pre- crisis

The 2010 earthquake destroyed an estimated 60% of Haiti's health system, including 50 health centres, and a number of hospitals have still not been fully rehabilitated. Others lack staff and essential medical equipment (USAID 31/01/2016).

Suspected cholera cases in Haiti, as of 31 August 2016 (OCHA 2016)



Poor access to WASH means Haiti is at a high risk of waterborne diseases. As of 26 September, 28,145 new suspected cholera cases have been reported in 2016, including 259 deaths. This is 27% more suspected cases than in the same period of 2015, and 34%

more deaths (OCHA 30/09/2016). Sporadic flooding in July resulted in a resurgence of cholera cases in several towns, including in the departments of Artibonite, Centre, Nippes, North, and West (OCHA 31/07/2016). The situation is most critical in the departments of West and Artibonite. Approximately 18 towns were on red alert and 10 on orange alert during August 2016 (OCHA 26/09/2016). 790,000 cholera cases, including 9,243 deaths, have reported since the start of the epidemic in October 2010 (OCHA 26/09/2016, OCHA 30/06/2016).

Cholera cases in Haiti, 2010–2016

Year	Number of cholera cases	Deaths	Most affected departments
2016 (Jan-Aug)	28,145	255	West, Artibonite
2015 (Jan-Dec)	36,045	322	West, Artibonite
2014 (Jan-Dec)	27,753	296	West, Artibonite, North and Centre
2013 (Jan-Dec)	58,809	593	West, Artibonite, North and Centre
2012 (Jan-Dec)	112,076	894	West
2011 (Jan-Dec)	340,311	2,869	West, Artibonite, North, Centre, North-East and South
2010 (Oct-Dec)	179,379	3,990	West, Artibonite and North

Source: OCHA 2016, PAHO and WHO 2016

Lessons learned

- Natural disasters can lead to disruption of usual water sources and contamination by damaged sewage infrastructure, resulting in unsafe drinking water being consumed (WHO 30/01/2010).
- Population displacement can result in overcrowding, raising the risk of transmission of communicable diseases that are spread from person to person through respiratory droplets, such as measles, diphtheria, pertussis (vaccine-preventable disease) and acute respiratory infections (WHO 30/01/2010).

Key documents

- UNICEF Haiti, 04/10/2016, Hurricane Matthew – Situation Report #2, <http://reliefweb.int/report/haiti/unicef-haiti-hurricane-matthew-situation-report-2-4-october-2016>
- UNICEF, 04/10/2016, LAC Humanitarian Situation Report on Hurricane Matthew (4 October 2016), <http://reliefweb.int/report/haiti/unicef-lac-humanitarian-situation-report-hurricane-matthew-4-october-2016>

- OCHA, 30/09/2016, Haiti: Humanitarian Snapshot (September 2016), http://www.redhum.org/uploads/documentos/pdf/Redhum-HT-Snapshot_humanitario_Sep_2016-OCHA-20160930-AM-19287.pdf
- PAN/WHO, 12/09/2016, Cholera in the Americas – Situation summary, http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&Itemid=270&gid=36116&lang=en

WASH

Crisis impact

Water, sanitation, and hygiene support is urgently needed to help prevent the spread of diseases such as cholera (IMC 04/10/2016, Caritas 04/10/2016).

Pre-crisis

1.35 million people are in need of WASH assistance, about 10% of the population, including some 726,000 people in need of access to safe water and hygiene items (OCHA 02/03/2016, OCHA 07/06/2016).

42% of the population does not have access to a safe drinking water source (CIA 28/09/2016).

7.6 million people or 72% of the population, lack access to improved sanitation (AFP 07/04/2016/OCHA 31/03/2016).

Lack of awareness means that people in rural areas often do not understand the dangers of contaminating drinking water with trash and chemicals (AFP 07/04/2016, OCHA 31/03/2016).

Lessons learned

- Water trucking is very expensive and not sustainable. It may eventually be replaced by strategically located wells (ACF 19/03/2009).
- Logistic is a major challenge in WASH response, especially if access is blocked. Need to identify land access vulnerabilities and have a back-up plan to gain rapid access to the site in case of blocked roads (ACF 19/03/2009).

Food security and livelihoods

Crisis impact

Existing vulnerabilities, particularly in Grand Anse, West, North-West and South departments are likely to be greatly exacerbated by the hurricane.

The impact of Hurricane Matthew upon the harvest is uncertain, though it is likely that planting will be affected.

Pre-crisis

An estimated 3.2 million people were food insecure across Haiti in September, including 456,000 who were severely food insecure (OCHA 04/2016).

The majority of the South department, particularly around the hurricane-affected regions of Port-a-Piment, Les Anglais, and Chardonnières would be experiencing at least Stressed (IPC Phase 2) food security conditions if it were not for humanitarian intervention. The North-Est department was experiencing Crisis (IPC Phase 3), while the West and North-Est were largely experiencing Stressed conditions. The bean and yam harvest is anticipated from September until mid-November. Crops had already reported damage due to the hurricane, and this is likely to impact food security in the future (FEWSNET 09/2016).

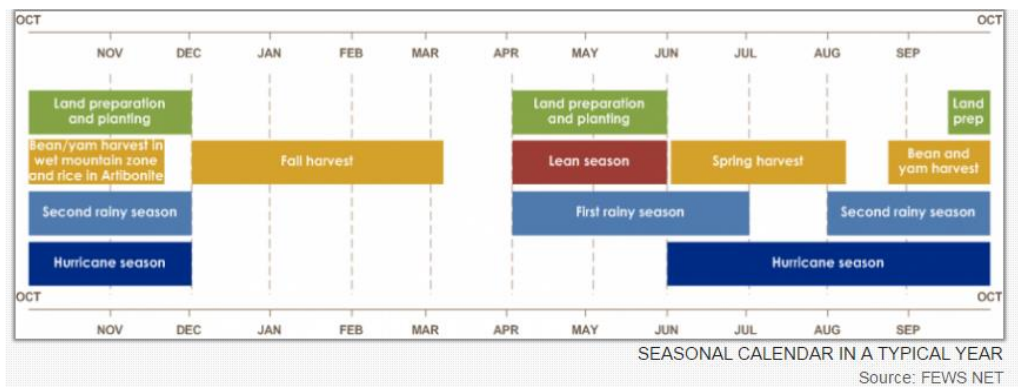
Over 30% moderate and severe food insecurity has been reported in WFP surveys of major population centres. In hurricane-affected areas, Les Cayes had 31% moderate food insecurity, Jacmel 23%, and Jeremie 47% (WFP 30/08/2016).

Cereal imports are forecast to reach 650,000 metric tons, 3% below last year's record level. Before the hurricane, cereal production was anticipated to recover strongly from previously drought-induced shortages, if weather conditions continued as normal during the growing period (FAO 4/10/2016).

Rice is Haiti's main staple and is mostly imported from the United States. The price of imported rice is higher in Jacmel and Jeremie – both affected by the hurricane – than in Port-au-Prince (FAO 4/10/2016). High food prices have reduced food access for the most vulnerable households throughout 2016, and September saw little change in prices (OCHA 04/2016).



Haiti seasonal calendar



Lessons learned

- Prepositioning food stocks in the most vulnerable areas is extremely important, as natural disasters can cut off roads for re-supplying. WFP has worked closely with the Haitian government and non-governmental partners to prepare for hurricane systems since 2013 (WFP 2013).
- Closer cooperation with local actors, the UN, and security forces has facilitated rapid and efficient food distribution in the past (HPN 08/2010).

Key documents

WFP, 30 August 2016, Urban Food Security Assessment
<https://www.wfp.org/content/haiti-urban-food-security-assessment-august-2016>

Protection

Crisis impact

Some inmates in high-risk prisons have been transferred as a precaution, including 42 people transferred from Miragoane to Fond-des-Negres, 60 from Aquin to Port-au-Prince, and 102 in Les Cayes and 323 in Mackandal, Jeremie, who went to local police stations (Haiti Libre 04/10/2016).

Pre-crisis

Election-related violence has been reported this year. Most of protests and violent political incidents occur in Port-of-Prince (OSAC 03/01/2016). Platform Pitit Desalin's electoral trailer was hit by rocks in Miragoane, Nippes (Alterpresse 27/07/2016). In Cerca-la-Source, in Plateau department, the campaign bus of the Platform's presidential candidate has been vandalised (Alterpresse 27/07/2016). In Milot, in the North department, there were clashes between supporters of Moise and those of the Parti Haitien Tet Kale (Alterpresse 27/07/2016). In the commune of Petit-Goave, in West department, protestors prevented a political meeting of the Fanim Lavalas party on 24 September; it was ultimately held in Jancem, in South-Est department (Alterpresse 27/07/2016). On 22 September, senatorial candidate Gracia Delva suffered gunshot injuries in Saint-Marc, in Artibonite (ANMWE 24/09/2016). There is a consensus that violence against women is widespread in Haiti (GSDRFC 03/08/2013).

Lessons learned

- It is important to improve capacity building, coordination and advocacy when addressing post-disaster psychological issues, and to facilitate the participation of the affected people (IOM 2010).
- There were many documentation issues with Haitian returnees from the Dominican Republic. It is reported that two thirds of the returnees do not have any documentation. (IOM 29/09/2016)
- IDPs have faced many protection issues during the last natural disasters hitting Haiti, especially the 2010 earthquake (Protection Cluster 05/07/2010). These include crimes in IDP camps, and many IDPs were reportedly raped by people who escaped prison (Protection Cluster 05/07/2010). Water reserves and food supplies were also reportedly depleted from IDPs after the recent earthquake (Protection Cluster 05/07/2010).

- The spike in crime that followed the 2010 earthquake was reportedly particularly high in Port-au-Prince. (Protection Cluster 05/07/2010).
- It is important to ensure access to support services for victims of gender-based violence (UNICEF 31/07/2010).
- Thousands of children were reportedly living unaccompanied after the 2010 earthquake in Port-au-Prince, and were especially susceptible to be hired as unpaid domestic servers. (Save the Children 31/12/2010)

Key documents

Amnesty International, January 2013, *Nowhere to Go: Forced Eviction in Haiti's Displacement Camps*,

http://www.globalprotectioncluster.org/_assets/files/field_protection_clusters/Haiti/files/HLP%20AoR/Force_d_Evictions_Haiti_Displacement_Camps_2013_EN.pdf

Bailey, Sarah et al., September 2012, Humanitarian Policy Group (HPG), *Avoiding Reality: Land, Institutions and Humanitarian Action in Post-Earthquake Haiti*,

http://www.globalprotectioncluster.org/_assets/files/field_protection_clusters/Haiti/files/HLP%20AoR/Land_Institutions_&_Humanitarian_Action_HPW_Report_2013_EN.pdf

Save the Children, December 2010, *Haiti's Children One Year Later: A Country at a*

Crossroads, http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SAVE_THE_CHILDREN_HAITI_1YR_REPORT_DEC2010.PDF

Key characteristics

Key indicators	Haiti
Total population	10,485,800 (July 2016 est.)
% population in rural areas	41.4% (2015 est.)
Gender and age distribution of population	0-14 years: 33.39% (0.99 male(s)/female) 15-24 years: 21.35% (1 male(s)/female) 25-54 years: 36.24% (0.99 male(s)/female) 55-64 years: 4.94% (0.91 male(s)/female) 65 years and over: 4.08% (0.81 male(s)/female) (2016 est.)
State capital	Port-au-Prince

Lighting and cooking sources	Access to electricity: 38% (2013 est.) Use of electricity for cooking: 0% Use of charcoal for cooking: 41.6% Use of wood for cooking: 51.8% Other cooking sources: 6.6%
WASH	Improved drinking water sources total: 57.7% of population (2015 est.) Improved sanitation facility: 27.6% of population (2015 est.)
Health	Life expectancy at birth: 63.8 years (2016 est.) Maternal mortality rate: 359 deaths/100,000 live births (2015 est.) Infant mortality rate: 48.2 deaths/1,000 live births (2016 est.) Hospital bed density: 1.3 beds/1,000 population (2007)
Food security	Global Hunger Index: 37.3; alarming severity (2015 est.) Population food insecure: 3.2 million (September 2016 est.) Population severely food insecure: 1.5 million (February 2016 est.)
Nutrition	Prevalence of overweight in children under 5: 3.6% (2015 est.) Global acute malnutrition: 5.2% (2015 est.) Severe acute malnutrition: 1% (2012 est.) Stunting: 21.9% (2015 est.)
Literacy	60.7% (2015 est.)
Others	Population density is fairly even, with largest concentrations located near coastal areas

Sources: CIA World Factbook, Global Alliance for Clean Cookstoves, Global Hunger Index, Coordination Nationale de la Sécurité Alimentaire 2016, WFP Food Security Reports, Global Nutrition Report, 2015 Haiti Nutrition Country Profile,

Departement population data

Key indicators	South	South-East	Grande-Anse	Nippes	West	North-West
Total population	774,976 (2015 est.)	632,601 (2015 est.)	468,301 (2015 est.)	342,525 (2015 est.)	4,029,705 (2015 est.)	728,807 (2015 est.)
% population in rural areas	77.3% (2015 est.)	85.2% (2015 est.)	76.4% (2015 est.)	81.8% (2015 est.)	15.7% (2015 est.)	72.1% (2015 est.)
Density	292 (2015 est.)	311 (2015 est.)	245 (2015 est.)	270 (2015 est.)	809 (2015 est.)	347 (2015 est.)

Sources : Direction des Statistiques Démographiques et Sociales (DSDS), Institut Haïtien de Statistique et d'Informatique (IHSI), mars 2015