HURRICANE MATTHEW EMERGENCY RESPONSE
MULTISECTOR ASSESSMENT

HAITI

REPORT

NOVEMBER 2016
About REACH
REACH is a joint initiative of two international non-governmental organizations - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH’s mission is to strengthen evidence-based decision making by aid actors through efficient data collection, management and analysis before, during and after an emergency. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. For more information please visit our website: www.reach-initiative.org. You can contact us directly at: geneva@reach-initiative.org and follow us on Twitter @REACH_info.
EXECUTIVE SUMMARY

Between October 24th and November 13th 2016 REACH teams conducted a multisector vulnerability and capacity assessment in the areas of South West Haiti most affected by Hurricane Matthew, with the aim of supporting humanitarian planning and response. Data was collected across 29 purposively selected communities through Focus Group Discussions and Key Informant Interviews, supporting an analysis of the hurricane’s impact by type of affected area, as well as by sector.

Hurricane Matthew devastated an already highly vulnerable region in Haiti, causing significant humanitarian and reconstruction challenges. The assessment points to the following key findings:

- Across all affected areas, level of damage was closely correlated to proximity to the hurricane track, to the type of shelter and buildings, as well as the exposure of a community to secondary disasters such as floods and landslides. Post hurricane vulnerability of affected communities was compounded by their level of isolation, with cut off communities being the most vulnerable.

- Urban communities were found to be relatively less vulnerable than rural ones. Most assessed urban areas (especially in Les Cayes and Jérémie) included better-built housing that withstood or was less damaged by the hurricane; while all had standing public buildings that were able to act as collective centres to host homeless and displaced populations. Overall, better access also helped a faster recovery of markets and infrastructure as well as more aid delivery. Pockets of high vulnerability remain among affected urban areas, including the smaller, more isolated towns that have been highly damaged and remained inaccessible at the time of the assessment. Within larger cities, neighbourhoods that were already most vulnerable before the hurricane were likely to be disproportionally affected by the hurricane.

- Rural areas were found to be more affected and vulnerable than urban ones because of less resistant housing, higher exposure to elements, lack of public buildings to act as collective centres, higher level of isolation and reliance on services and markets that were no longer accessible. The most vulnerable rural communities were remote ones which were close to the path of the hurricane and inaccessible by road. These included highland areas, as well as the Tiberon Valley, where scores of people are reported sleeping in makeshift shelter or in the open air, relying on assistance which still had not materialised.

- At the time of the assessment, loss of housing was the main driver of displacement. For the majority this consisted of intra-community displacement toward collective shelter or houses of friends and relatives. Overcrowded and unsanitary conditions in collective centres are a major source of concern, also in light of the rising incidence of water-borne disease. With the exception of Randel and la Créole, no assessed communities reported large outward migration. However, about half assessed communities reported that, in the short term, a large section of their population was likely to move either permanently or temporarily, driven by livelihood considerations.

- All communities reported shelter as a top priority need, followed by food, healthcare, access to education, access to water and sanitation, as well as livelihoods recovery.

- All communities assessed had widespread damage of shelter, the degree of which was directly linked to the proximity to the hurricane path and/or to secondary disaster, and to the type of shelter. In many rural communities all houses were completely destroyed or heavily damaged. Where no other options were available, the homeless had to resort to makeshift shelter or sleeping in the open air. Precarious self-rebuild was visible in most assessed communities, mainly using salvaged debris.

- Most assessed communities were food insecure. Across all areas, the hurricane devastated agriculture and fishing. This is of particular concern for rural communities, but also large sections of urban ones, which relied on agriculture and fishing for their food intake. Small scale trade / business was also heavily
impacted due to damage to the structure where they were housed as well as damage to store food stock, often due to flooding. The parallel loss of income sources and assets as well as the reduced availability and price inflation of food items in markets, led to the widespread adoption of negative coping strategies (such as skipping or reducing meals) as well as a reliance on donations and food aid, as reported by about half of communities assessed.

- **Water, sanitation and hygiene concerns were reported in the majority of assessed communities, creating a major hazard in relation to the growing incidence of water borne diseases.** Over two thirds of assessed communities reported insufficient availability of water, including 8 communities reporting that they relied on drinking water from unprotected sources (river or open wells) as their water network was completely dysfunctional as a result of the hurricane. The lack of latrines and soap was highlighted as a concern in most communities, specifically in collective centres, with approximately half of assessed communities reporting that they had no latrines or soap.

- **The hurricane resulted in a sharp increase in injury and waterborne disease while severely reducing the availability of healthcare.** Since the hurricane, about half of assessed communities reported an increase in disability, and on the incidence of water borne disease, notably typhoid and cholera, as well as widespread diarrhoea. In parallel, the hurricane affected healthcare by impeding access to or (in a small number of cases) destroying health facilities, health centres and dispensaries.

- **Education has come to a standstill in most assessed communities.** Where school facilities were not destroyed, they were used as collective centres to host displaced populations. Better, but still highly concerning, access levels to schooling were reported in urban areas, especially Les Cayes and Jérémie.

The following **recommendations** are based on assessment findings:

- **Overall, there is a need to rapidly upscale humanitarian assistance while in parallel supporting the rapid recovery of markets and services.** Over a month (six weeks at the time of writing) after the hurricane, too many communities remain exposed to life-threatening conditions and have not received sufficient support to meet their most basic needs. In parallel, the recovery of markets and services is very slow, hampered by significant loss of assets and capital.

- **Basic lifesaving assistance, inclusive of emergency shelter kits, food distributions, health and WASH should be provided in priority to the most remote and most affected areas.** To enable this, access must be ensured to the many communities that remain cut off, by clearing roads and/or increasing the availability of air services. Given the scale of the crisis, further funding will be required to meet such basic needs.

- **In parallel, an early recovery of markets, livelihoods and services should be supported.** Across all areas, the most affected and most vulnerable populations will require support to re-establish their lost assets, including housing and livelihoods. In parallel, services should be supported in meeting the humanitarian basic needs of the population, while resuming their pre-hurricane functions. To enable this, the adoption of settlement-based approaches should be considered by aid actors, promoting holistic community-led reconstruction and recovery that improve community resilience.
EXECUTIVE SUMMARY .................................................................................................................................2
CONTENT........................................................................................................................................................4
List of Figures, Tables and Maps ..........................................................................................................................5
INTRODUCTION ....................................................................................................................................................6
METHODOLOGY ....................................................................................................................................................7
  Sampling .........................................................................................................................................................7
  Data collection ...............................................................................................................................................10
  Limitations ..................................................................................................................................................11
FINDINGS...........................................................................................................................................................12
  Findings by area ..........................................................................................................................................12
    Urban Communities ................................................................................................................................12
    Rural communities ..................................................................................................................................16
  Sectoral Findings .......................................................................................................................................22
    Displacement ............................................................................................................................................22
    Shelter & NFIs ........................................................................................................................................23
    Food Security & Livelihoods .....................................................................................................................25
    Water, Sanitation and Hygiene (WASH) .................................................................................................29
    Health ....................................................................................................................................................31
    Education ...............................................................................................................................................34
CONCLUSION ....................................................................................................................................................36
ANNEXES..........................................................................................................................................................37
  Annex 1: Community Factsheets ..................................................................................................................37
  Annex 2: Participatory mapping form ..........................................................................................................37
  Annex 3: KI interview questionnaire .........................................................................................................37
List of Figures, Tables and Maps

Figure 1: Aerial view of Jérémie .......................................................................................................................... 13
Figure 2: Richer neighbourhood of Jérémie ......................................................................................................... 13
Figure 3: Case studies on collective shelters in Jérémie ......................................................................................... 14
Figure 4: River and road from Port à Piment to Randel ..................................................................................... 15
Figure 5: Aerial view of Chardonnières and its vulnerability to the sea ............................................................... 15
Figure 6: Damages to restaurants and shops along the beach near Point de Sable (Port Salut) ......................... 18
Figure 7: Clear demarcations of areas that have been flooded by the nearby river – start of Tiburon valley .... 19
Figure 8: Aerial view of Bérault and nearby river ............................................................................................. 19
Figure 9: Access constraints to rural highland communities .............................................................................. 20
Figure 10: Impact on highland areas due to violent winds ................................................................................ 21
Figure 11: Examples of completely destroyed houses in Barbois ..................................................................... 23
Figure 12: Example of roof damage (Marfranc) .................................................................................................. 23
Figure 13: Example of stoned wall damage (Beaumont) ...................................................................................... 23
Figure 14: Houses using distributed plastic-sheeting (Gebeau) ........................................................................ 24
Figure 15: Top barriers reported to access food presently .................................................................................. 26
Figure 16: Damaged market in Marfranc ............................................................................................................. 26
Figure 17: Food-related coping mechanisms, reported by KIs ......................................................................... 27
Figure 18: Localities reported to have received no food aid post hurricane ...................................................... 27
Figure 19: Livelihood activities most affected by the hurricane ........................................................................ 28
Figure 20: Types of seeds/harvest lost or damaged due to hurricane ................................................................. 28
Figure 21: Farmlands in Grand Anse (left) and Sud (right), now covered with debris ......................................... 28
Figure 22: Communities suffering critical damage to water sources ................................................................. 30
Figure 23: Access to sufficient quantity of drinking water .................................................................................... 30
Figure 24: Problems with distance or waiting time to collect drinking water ..................................................... 30
Figure 25: Reported extent of toilet access in communities assessed .................................................................. 31
Figure 26: Main illnesses faced in assessed communities .................................................................................. 32
Figure 27: Access to healthcare reported, pre and post hurricane, by type of facility .......................................... 33
Figure 28: Damaged hospital in Beaumont ......................................................................................................... 33
Figure 29: Reported barriers to access healthcare at time of assessment ............................................................ 33
Figure 30: School attendance rate (male) pre-post hurricane ............................................................................. 34
Figure 31: School attendance rate (female), pre-post hurricane ........................................................................ 34
Figure 32: Main reasons for non-functioning of schools ..................................................................................... 35
Figure 33: Severe damage to secondary school building and school supplies in Chardonnières in Sud ............... 35
Figure 34: Kindergarten in Chardonnières whose roof was fully blown away and furniture damage ............... 35

Table 1: Geographic categories .......................................................................................................................... 7
Table 2: Selected communities .......................................................................................................................... 9
Table 3: Locations reported to be predominantly hosting displaced people from outside own community ...... 22
Table 4: Reported change in proportion of disabled people pre-post hurricane ............................................... 32

Map 1: Assessed communities by category ..................................................................................................... 10
Map 2: Assessed primary urban centres ........................................................................................................... 12
Map 3: Assessed secondary urban centres ...................................................................................................... 15
Map 4: Assessed coastal communities .......................................................................................................... 16
Map 5: Assessed inland lowland communities ................................................................................................. 18
Map 6: Assessed rural inland highland communities ....................................................................................... 20
INTRODUCTION

In the evening of October 3, 2016, the Southwestern tip of Haiti was struck by Hurricane Matthew, a category 4 on the Saffir-Simpson Wind Scale. The hurricane was one of the most violent in the past 10 years with average wind speed of 230km/h (145 mph) and heavy rainfall leading to widespread flooding and mudslides across Sud and Grand Anse departments of Grand Sud region. Tens of thousands of homes were destroyed, fields and trees uprooted, and entire towns were made unrecognizable due to collapsed and damaged infrastructure. An estimated total of 2.1 million people are reported to have been affected, including 1.4 million estimated as in need of humanitarian assistance, and 175,509 displaced.¹

Various humanitarian actors have mobilised in support of affected populations since the hurricane. Despite this, over a month into the crisis, a number of information gaps continue to negatively affect humanitarian planning and coordination, including (a) on multi-sector needs and vulnerabilities across affected areas; as well as (b) on the functionality of and impact of the hurricane on local services and capacity.

To fill these information gaps, REACH deployed to Haiti in mid-October to conduct a Multi-Sector Assessment (MSA) in Sud and Grand Anse departments, with financial support from OFDA. The assessment was undertaken in close coordination with UN OCHA and humanitarian actors at capital and field level, and aims to inform interagency planning and response processes, notably contributing to the upcoming Humanitarian Needs Overview and Humanitarian Response Plan for Haiti. Data collection informing this report was conducted between October 24th and November 13th in 29 communities, purposively selected as representative of certain types of area (rural/urban, highland/lowland, inland/coastal). In each assessed community, data was gathered through Focus Group Discussions (FGDs), inclusive of participatory mapping, and/or Key Informant Interviews (KIIs). Community-specific factsheet can be found in Annex 1 of this report.

¹ OCHA, Haiti : Ouragan Matthew, Rapport de situation n°21 (11 novembre 2016)
In consultation with its partners, REACH opted for a qualitative, area-based approach to data collection. This enabled a better analysis by type of area, as well as by sector.

**Sampling**

Given anticipated commonalities in access, livelihoods and hurricane impact, according to whether areas are coastal or inland, highland or lowland, and urban or rural, a combination of these criteria was used to inform community selection in both Sud and Grand Anse Departments.

*Sections communales* - the lowest administrative unit for which population data is available - was used as an entry point to categorise areas. If a *section communale* fell into several categories (eg. there is a main town as well as rural areas; or there are both lowland and highland areas), it was sub-divided as many times as needed to better reflect the different areas within it. For instance, 3rd *section communale* Cosse (*Commune* of Les Anglais) was subdivided into four areas:

- Cosse I: urban – coastal – lowland (corresponding to the main town Les Anglais).
- Cosse II: rural – coastal – lowland
- Cosse III: rural – inland – lowland
- Cosse IV: rural – inland – highland

The following criteria were used for the categorisation:

- **Urban vs Rural**: data from the 2015 HDX population figures was used to identify urban communities. As long as some urban population was indicated in a *section communale*, the *section communale* was subdivided into urban and rural areas. ²
- **Coastal vs Inland**: areas near the sea and within which community members can rely on fishing were classified as coastal.
- **Lowland vs Highland**: Areas above 600 metres were classified as highland as this is the median height of land in Haiti. However, based on discussion with different actors and considering the level of access constraints and similar livelihoods, two areas under 600 metres (Randel and Dansin), were also classified as highland.

<table>
<thead>
<tr>
<th>Table 1: Geographic categories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban vs Rural</strong></td>
</tr>
<tr>
<td>1 Urban</td>
</tr>
<tr>
<td>2 Rural</td>
</tr>
<tr>
<td>3 Urban</td>
</tr>
<tr>
<td>4 Urban</td>
</tr>
<tr>
<td>5 Rural</td>
</tr>
<tr>
<td>6 Rural</td>
</tr>
</tbody>
</table>

In addition, the following criteria was taken in consideration for the selection of *sections communales*:

- Areas most affected by damage according to secondary data
- Wind speed

---

² *Communes* are constituted of a main city and *sections communales*. However this was not the case in the database used, in which the main city was included in the closest *section communale*. This was later changed to reflect the correct administrative divisions. As a result, main cities of communes are referred to as “centre-ville” in the rest of the report.
- Distance from Hurricane centre
- Rain level
- Population size
- Recommendations by local actors/government bodies
- Accessibility as well as safety and security, which were reviewed in conjunction with local government counterparts.

Map 1: Categorisation of areas in Sud and Grand Anse and distance from the hurricane path.

Within each section communale, one or more communities were identified. Communities corresponded to localités (in rural area) or quartiers (in urban areas), the boundaries of which were outlines by community members. Localités were chosen randomly within the section communale so long as they fulfilled the geographic criteria. The Mayor of each assessed commune was contacted beforehand to ensure approval. Then, where possible, the local CASEC was contacted to find key informants and special effort was made to ensure a diverse representation (in terms of gender and profiles) when constituting the discussion groups. In total, 29 communities were assessed. These are outlined in the following table:

---

3 Most eastern communes of the Sud Department (Aquin and Saint Louis du Sud) are not shown in this map and were considered to far from the hurricane track to be included in the assessment (wind speed criteria).
4 A commune is the administrative unit below the department. Each commune includes various Sections Communales
5 Conseil d’Administration des Sections Communales (CASEC): Committee in charge of the sections communales. It was sometimes not possible to contact them due to lack of phone network, or unavailability. When it was the case, other community leaders were identified with the help of the mayor or humanitarian organisations working in the relevant areas.
Table 2: Selected communities

<table>
<thead>
<tr>
<th>Categories</th>
<th>Departments</th>
<th>Commune</th>
<th>Section Communale / Centre ville</th>
<th>Localité</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban coastal lowland</td>
<td>Sud</td>
<td>Roche à Bateau</td>
<td>Centre ville</td>
<td>Roche à Bateau</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Port à Piment</td>
<td>Centre ville</td>
<td>Port à Piment</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Chardonnières</td>
<td>Centre ville</td>
<td>Chardonnières</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Tiburon</td>
<td>Centre ville</td>
<td>Tiburon</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Les Cayes</td>
<td>Centre-ville (4 different neighbourhoods)</td>
<td>La Savane, La Créole, Morne Coquille, Centre-ville</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Jérémie</td>
<td>Centre-ville (4 different neighbourhoods)</td>
<td>Mackandal, Gebeau, Caracolie, Centre-ville</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Dame Marie</td>
<td>Centre-ville</td>
<td>Dame Marie</td>
</tr>
<tr>
<td>Urban inland lowland</td>
<td>Sud</td>
<td>Arniquet</td>
<td>Centre-ville</td>
<td>Arniquet</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Camp Perrin</td>
<td>Centre ville</td>
<td>Camp Perrin</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Marfranc</td>
<td>Centre-ville</td>
<td>Marfranc</td>
</tr>
<tr>
<td>Urban inland highland</td>
<td>Sud</td>
<td>Chardonnières</td>
<td>Randel</td>
<td>Randel</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Beaumont</td>
<td>Centre-ville</td>
<td>Beaumont</td>
</tr>
<tr>
<td>Rural coastal lowland</td>
<td>Sud</td>
<td>Port Salut</td>
<td>Dumont</td>
<td>Port Saline / Point de Sable</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Tiburon</td>
<td>Blactote</td>
<td>Carrefour Gros Chaudiere</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Ile à Vache</td>
<td>Centre ville</td>
<td>Madame Bernard</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Dame Marie</td>
<td>Bariadelle</td>
<td>Grif</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Roseaux</td>
<td>Centre-ville</td>
<td>Roseaux</td>
</tr>
<tr>
<td>Rural inland lowland</td>
<td>Sud</td>
<td>Tiburon</td>
<td>Loby</td>
<td>Chame Valley</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Torbeck</td>
<td>Bérault</td>
<td>Bérault</td>
</tr>
<tr>
<td></td>
<td>Sud</td>
<td>Port Salut</td>
<td>Barbois</td>
<td>Barbois</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Jérémie</td>
<td>Basse Guinaudée</td>
<td>Fourcan</td>
</tr>
<tr>
<td>Rural inland highland</td>
<td>Sud</td>
<td>Les Anglais</td>
<td>Cosse</td>
<td>Dansin</td>
</tr>
<tr>
<td></td>
<td>Grand Anse</td>
<td>Pestel</td>
<td>Duchity</td>
<td>Bas-Duchity</td>
</tr>
</tbody>
</table>

The following map located the assessed communities, displaying them by category:  

\[ \text{Map} \]

---

6 Gebeau is located just outside of Jérémie city. However, due to its proximity to and its high dependence on the city for basic services, it has been considered as part of it for this assessment.

7 Although an island and thus facing some specific challenges, Ile à Vache has been classified as a rural coastal lowland area due to high similarities.

8 A rural area at the outskirt of the main town of Roseaux was assessed.

9 It must be noted that four different neighbourhoods were assessed in both Jérémie and Les Cayes although they appear as one locality in the map.
Map 2: Assessed communities by category

Data collection

REACH operated out of two field bases to carry out the assessment in the Grand Sud region: 1) Les Cayes base, to assess areas in Sud department and 2) Jérémie base, to assess areas in Grand'Anse department. For each base, ten enumerators were hired and trained in all aspects of moderating, note-taking and interviewing techniques for the focus group discussions and key informant interview exercises. Data collection was conducted in 29 communities during a three-week period, using a mix of cars and UNHAS helicopters to reach targeted areas. Pilot assessments were finalised in Sud and Grand' Anse departments on 24th October and 3rd November respectively. Subsequently, areas in Sud department were assessed between 24th October and 3rd November, while areas in Grand' Anse department were evaluated between 4th and 17th November.

In each community, Focus Group Discussion (FGD) and Key Informant (KI) interviews were conducted with community representatives who were selected on the basis of their ability to report on the impact of the hurricane in their community. FGDs were inclusive of a participatory mapping exercise, allowing a spatial analysis of damage and functionality to key services.

i. Focus Group Discussions:
Base-maps were used to map out affected areas as part of a focus group discussion with 4-6 community representatives. Community representatives were guided through discussion topics relating to infrastructure functionality and damage, as well as access. Probing questions focused on the ways communities have addressed identified challenges. Topics included access routes, water sources, schools, markets and health centres mapped according to accessibility and functionality. Finally, community members were also asked to indicate the extent of shelter damage, particularly
the reasons why certain locations within the area, as well as types of shelters, were more/less affected. The FGD questionnaire can be found in Annex 2.

ii. **Key Informant Interview (KII):**
A structured questionnaire was developed and administered to a community representative in each area focusing on needs and community capacity – complementing information gathered from FGD. The KII sought more in-depth understanding of the effect of the hurricane on WASH, livelihoods, displacement, education, shelter and health in the community and helped gain an insight into the implications of how accessibility, functionality and damage identified in the FGD exercise. The questionnaire was influenced by that of the government designed multi-sector tool led by the Direction de la Protection Civile (DPC), the Centre Opérationnel d’Urgence National (COUN) and Centres Opérationnels d’Urgence Départementaux (COUD). The WASH component was fully aligned with the Global WASH cluster-led harmonized key informant tool to ensure comparability, and was approved by the DINEPA. The KII questionnaire can be found in Annex 3.

FGD and KII findings were triangulated with observation from enumerators and with existing secondary data. Satellite imagery analysis of damage was conducted by REACH partner UNOSAT to complement those done by Copernicus.

It should be noted that no KII is available for Port Saline where only participatory mapping was conducted. As a result, only 28 communities, instead of 29, are referred to when analysing data collected during the KII.

**Limitations**

In light of the qualitative nature of the assessment, as well as encountered operational difficulties, a number of limitations are outlined below:

1. The sampling used for the assessment is a non-probability purposive sampling. It was not possible and indeed not the intention, to generalise findings with a specified level of statistical precision. In addition, while the study was designed with the goal to minimise the scope of error or misinformation, by relying on multiple key informants through its two-pronged methodology, discrepancies between community reported facts/figures and the actual facts/figures cannot be fully ruled out.

2. Due to logistical and access constraints enumerators were not able to access some areas, in particular in Grand’ Anse, where several places located in the communes of Abricots, Sources Chaudes, Iles Blanches, Duquillon, Anse d’Hainault and Les Irois were inaccessible due to heavy rains, flooding of rivers or debris. There were therefore less visits to hard to reach areas than to areas of easier access and fewer places were evaluated in Grand Anse compared to Sud. Five hard to reach areas were accessed thanks to helicopter flights. However in Dansin (Cosse) and Camp-Perrin limited time available meant that only tablet-based key informant interviews were carried out. Similarly, due to inaccessibility, only phone-based interview could be conducted in Fourcan (Basse Guinaudée). It was not possible to do the participatory mapping exercise in these locations.

3. The results presented in the report reflect the situation and inputs gathered from the community at the time the evaluation was carried out in the particular location. The situation may since have changed in the interim as communities mobilise themselves to adapt to the new challenges or may have received some external aid.
FINDINGS

Findings are presented and analysed in two sections, firstly by type of area, then sectorally. The sectoral analysis also includes a section on displacement. Across all areas and sectors, the following variables were found to be closely correlated to level of damage and vulnerabilities:

- Proximity to the hurricane track: The closer a community from the hurricane, the more damage it was likely to have experienced.
- Type of shelters/buildings: Concrete buildings were significantly less likely to have been affected than those with roofs made of metal sheet, of thatch and/or with walls of stone masonry, wood, straw, mud or palm leaves.
- Exposure to secondary disasters: Landslides and flooding caused by heavy rain, rivers or the sea caused extensive damage in the region. As such, proneness to such secondary disasters has exacerbated in some areas the initial destruction due to hurricane winds.
- Accessibility: access constraints were closely correlated to a community ability to meet their basic needs and to access key services and external assistance. Consequently, communities that were still cut off at the time of the assessment as a result of the hurricane were found to be more vulnerable.

Findings by area

While a high degree of damage has been inflicted on nearly all locations surveyed, clear differences have emerged on how different type of areas have been affected by the hurricane, as well as on their recovery capacity and priority needs. The following section analyses assessment findings by type of area, subdividing them between urban (which includes main town) and rural areas, with further sub-categorisations within each section. Each section begins with a brief description of the unique features of the area, the type and scope of damage, functioning of markets, and reported access to functioning services, principal livelihoods affected and finally the identified priority needs.

Urban Communities

Assessed urban communities were classified into two types:

a. Primary urban centres, i.e. Les Cayes and Jérémie that serve as main arteries of the Grand Sud region.

b. Secondary urban centres that are smaller, but still constitute the main towns within their respective communes or sub-regions.

Primary Urban Centres

Les Cayes and Jérémie, the main cities of Sud and Grand Anse departments respectively, are relatively large urban centres located near the coast. They are densely populated (see Figure 1) and are composed of a number of neighbourhoods which have been affected to varying extents by the hurricane. Both cities have served as hubs for humanitarian operations in the region since the hurricane. In each city, four neighbourhoods were assessed: These included Mackandal, Centre ville, Gebeau and Caracolie in Jérémie and La Crête, La Savane, Mornes Coquille and Centre-ville in Les Cayes. Overall the city of Jeremy was more heavily affected by the hurricane as it was closer to its path.
In both cities, neighbourhoods facing the sea, close to rivers and (for Jérémie) on the hills have been more impacted. Prior to the hurricane, these neighbourhoods were in large parts inhabited by the most vulnerable populations who were not aware or did not have the means to build disaster-resistant shelters. Because of their location near the sea, rivers and on the sides of hills, they were more likely to be subjected to stronger winds, violent waves and subsequent flooding, causing extensive damage to housing and other infrastructure after the hurricane.

In Les Cayes, the assessed neighbourhoods of Morne-Coquille and La Créole (already highly vulnerable before the hurricane due to poor sanitation, poorly constructed houses and proximity to river bodies) suffered more damage as they were flooded from two directions and strong winds which blew away the weak roofs and walls of many structures. In Jérémie, the vulnerable neighbourhoods of Mackandal and Gebeau were located near the sea or the river, and, as a result, subject to river and/or sea flooding in addition to the strong consequences of the wind. In both Jérémie and Les Cayes, housing and infrastructure in the better-off central parts of the cities were relatively less damaged due to prevalence of stronger concrete-based structures and lesser direct exposure to the sea, rivers or wind (see Figure 2).

Markets were quickly re-established in both cities, where basic food and non-food items, as well as basic reconstruction materials, were available although not affordable for many populations who lost their assets and livelihood sources. Access to water varied depending on the type of neighbourhood. In the neighbourhoods of Mornes Coquilles in Les Cayes the population reported not using the hand pump for fear of contamination. The situation in Jérémie was more critical, with all assessed neighbourhoods reporting challenges to accessing water. Gebeau appears as particularly vulnerable as the water kiosk has been destroyed as result of the hurricane; households who could not afford to buy bottled water reportedly used the river as a source of drinking water. The most affected and poorer neighbourhoods were also more vulnerable in terms of sanitation, with open defecation reported in five of the assessed neighbourhoods in both cities, raising serious concerns for the health and hygiene situations with a risk of contamination of water sources nearby. In Mornes Coquilles, in Les Cayes, waste water was observed flowing on the street. In many neighbourhoods of Jérémie, the presence of debris in the drainage network also made them easily susceptible to floods and unsanitary situations.

Les Cayes and Jérémie constitute two regional hubs for services in the region, attracting people from the whole departments. Several health centres are available in both cities, with the vast majority of them still being functional after the hurricane. Education services were largely available prior to the hurricane, with numerous schools in both cities, from pre-primary to university level. Many schools suffered damages, notably to the roof, as a result of the
Hurricane Matthew Emergency Response: MSA – November 2016

Hurricane, with relatively few being completely destroyed. A large majority was being used as collective shelters at the time of assessment, and were therefore non-functional. The visited collective shelters were overcrowded and lacked appropriate sanitation facilities. The insert below outlines the main findings of a specific assessments conducted by REACH in 15 schools that were used as collective shelters of Jérémie:10

Figure 3: Case studies on collective shelters in Jérémie

Assessment of collective shelters in Jérémie

Fifteen schools used as collective centres were assessed in the city of Jérémie on November 1 and 2. In most, the vast majority of residents come from surrounding neighbourhoods that were heavily affected by the Hurricane. The main reported reason for being in the collective shelters was the inhabitability of homes, with some also mentioning that it was easier to access aid from collective centres. In all sites populations highlighted that they would like to return to their homes as quickly as possible; however in order to do so they required a degree of support, notably for making their homes habitable. In the vast majority of cases requested items corresponded to the minimum necessary to cover the roof, be it tarpaulin, CGI and/or wood, or the financial equivalent. If the aid was not available, respondents mentioned would not be able to return to their homes and would need continued access to other forms of shelter. Some collective shelter residents reported being renters of the damaged or destroyed homes; the rehabilitation of these homes would therefore depend on the home owners. Until then renters will require alternative shelter.

Households in both cities primarily relied on trade, mostly small-scale, as a source of income. Small scale commerce was reported as heavily affected by the hurricane in all assessed neighbourhoods, with traders losing their assets and savings. In many neighbourhoods, affected small traders reported borrowing by informal lenders in order to restart their activities. Daily labour was mentioned as a main post hurricane livelihood source in five of the assessed neighbourhoods. Some fishermen communities in neighbourhoods close to the sea, particularly in Jérémie, also reported been negatively affected. In Jérémie, agriculture and livestock were mentioned as sources of livelihoods which were heavily affected by the hurricane. Worryingly, it was mentioned in Jérémie that prostitution was on rise since the hurricane.

Both Les Cayes and Jérémie are recovering faster than any other area affected by the Hurricane, due to the dynamism of markets, the relatively good infrastructure pre-dating the hurricane, as well as the relative high amount of aid provided in the cities, which are acting as humanitarian hubs for the entire affected region. Priorities for the urban centres, should be to support the livelihood recovery and reconstruction of the most affected neighbourhoods (primarily in Jérémie), as well as the re-establishment of regional services. This should be accompanied by a support to people who are still living in collective shelters, as well as other homeless populations, to rebuild and return to their homes.

Secondary Urban Centres:

Secondary urban centres constitute a more varied category of smaller homogeneous towns which are both in coastal and inland areas and that act as service and market hubs for their communes or sub-region. Among them two sub-categories can be observed:

- Larger urban centres which act as a service and market hub for a relatively large area. All these are served by a main road and (with the exception of Beaumont) are in coastal areas (the case of Port à Piment, Tiburon and Dame Marie);

10 At the time of writing, some of the assessed schools have already been evacuated, although many are still being used as collective shelters. Rapid assessment of 15 schools used as collective shelters in Jérémie, Haiti, 2 November 2016; available at: http://bit.ly/2eksHaX
- Smaller, town-like, urban centres whose service and market catchment areas are restricted to their immediate surroundings. These include Arniquet, Roche à Bateau, Chardonnières, Randel, Camp Perrin and Marfranc.

When compared to les Cayes and Jérémie, secondary urban centres had a lower proportion of concrete buildings and mostly comprised houses with badly attached metal-sheet roofing. As a result, they experienced a higher level of damage and destruction to housing, especially in areas close to the hurricane path. Given their more limited service hub function, they also had a lesser choice of common buildings to act as collective shelters. To accommodate homeless households, all public buildings were transformed in collective shelters – but this was still insufficient to meet the shelter needs of the populations. In Arniquet, for example, buildings converted to collective shelters included the library, dispensary, church, school and even the latrines of a school.

At the time of the assessment, roads access has been re-established to all assessed secondary urban centres, with the exception of Tiburon and Randel. Access to Tiburon remained impossible as part of the national highway was submerged in the sea while Randel was only accessible by foot as the road has been heavily damaged by landslides, and flooding of the nearby river (see Figure 4 below).

With regards to availability of services and basic items, more accessible and larger urban centres were able to recover faster than the more isolated and smaller ones. The level of accessibility was closely correlated to replenishment of markets as well as delivery of aid by humanitarian actors, which also prioritised outreach to larger urban areas. Larger urban centres were also more likely to have better service infrastructure (schools, health
centres, but also electricity and water networks) which was less damaged by the hurricane. In comparison, less accessible and smaller urban centres faced more difficulties in re-establishing basic services, many of which were more heavily affected by the hurricane. Markets were re-established in all assessed secondary urban centres, but were generally characterised by insufficient availability of basic food and non-food items and higher prices.

Despite the occurrence of food distributions (reported in all assessed communities except Randel), all assessed secondary urban communities reported challenges to accessing food, mostly relating to loss of markets and primary sources of food (own production, livestock and fishing), as well as loss of income sources. As a result, several coping strategies were reportedly being used by community members in all assessed secondary urban centres, such as selling assets and reducing both the number and the size of meals.

With regards to livelihoods, relatively large sections of the population of secondary urban areas relied on commerce and labour. However, compare to larger cities, secondary urban centres were more reliant on agriculture as a source of both food and income. Agricultural livelihoods and food security were severely affected in all assessed area, as the hurricane wreaked havoc on the farmlands and subjected farmers to losses.

The more remote and smaller secondary urban centres should be prioritised for humanitarian and recovery support. Not only are they often heavily affected and vulnerable, they also act as small hubs to even more isolated and vulnerable rural populations in their surroundings. In addition to meeting basic needs, aid actors should focus on restoring livelihoods and support the re-establishment of key services. In particular, all assessed secondary urban areas reported difficulties in restoring health care and education due to damage to infrastructure, use of infrastructure as collective centres, loss of qualified staff and equipment, paralleled by (for health) an increase in needs, particularly to deal with the Cholera outbreak.

Rural communities

In the following section, assessed rural communities are categorised and analysed by whether they are (a) coastal (b) inland and lowland (c) highland.

Rural Coastal Communities

Compared to other rural communities, assessed coastal areas were characterised by a higher population densities and a more diversified pre-hurricane economy, with agriculture and livestock rearing complemented by fishing and, for some communities, tourism. Most of pre hurricane coastal communities were also relatively well connected by a coastal road, with the exception of some communities in the western Grand Anse the access to which depended on mountain inland roads.

When compared to their urban counterparts, assessed rural coastal communities were severely impacted by Hurricane Matthew in terms of shelter damage and destruction. Pre-hurricane, the primary shelter type in these communities consisted of roofs covered with CGI and walls of straw, mud and/or woven dried palm tree leaves (clisse in Créole). Most of these shelter were poorly constructed and therefore more vulnerable to strong winds and floods. In coastal rural communities only a handful of buildings, including public ones, are made of concrete; these
are also the buildings that were either left intact or that suffered from minor damages. Most of those whose homes were completely destroyed found temporary shelter in less damaged homes of friends, family and neighbours. In addition, nearly all public institutions such as schools, churches, and even a home for pensioners (in rural Roseaux) were utilised as collective shelters for the homeless, with many also seeking shelter in public buildings in close-by urban centres. With regards to availability of sanitation facilities (notably latrines) temporary collective shelters in rural areas were found to be in more critical conditions that those in urban areas.

The hurricane also severely affected the road network to rural coastal communities, including coastal roads (such as rural Port Salut) and inland roads that lead to coastal areas (such as Western communities of Grande Anse). All communities assessed were isolated in the immediately aftermath of the hurricane because of damage to the road network. In some locations such as rural areas near Roseaux town or in Grif (in Bariadelle section communale of Dame Marie), the community mobilised its members to remove debris from the routes, making them accessible at the time of the assessment. However many other coastal rural communities which lacked the means to clear debris or to conduct the necessary repairs remained inaccessible by road at the time of the assessment. This was the case, for example, in Carrefour Gros Chaudiere (in Tiburon) where the access road was completed submerged in the sea. Large sections of coastal roads were only accessible using off-road vehicles due to the volume of sand which was deposited on them (such as in Port Saline in Port Salut).

Overall, assessed rural coastal communities were found to lack adequate access to markets. Only one assessed community (rural Roseaux) had a public market, where all the rest relied on markets in close-by bigger urban centres. Although the majority of such markets were also reported to be fully destroyed, enumerators observed that most NFIs, in particular soap, ropes, brushes and buckets, seemed to be amply available for sale on the street markets. However very little amount of food was observed, confirming reports across assessed communities in this category of lack of food items in markets and shops as a main challenge to accessing food. In addition, destruction of production and a lack of resources to buy food were mentioned as a key food security challenge across all communities. The two assessed coastal communities in Grand Anse (Rural Roseaux and Grif) also reported a lack of access to functional markets.

All coastal rural areas assessed, with the exception of Carrefour Gros Chaudiere (in Tiburon), reported that already prior to the Hurricane they lacked adequate access to drinking water sources, as well as health care and markets. Only one assessed rural coastal location (Port Salut) reported having a hospital, the rest either had access to dispensaries or a mobile clinic or nothing at all within the town. Many reported relying on close-by urban towns for treatment. Most had access to some schools within the community areas, a majority of which were either destroyed or being used as collective shelters at the time of the assessment. The loss of school supplies was categorically stated as a further setback to rural families, most of whom were reported as having limited means of income and thereby expected to find it difficult to replenish school items for their children.

Pre-hurricane, all assessed rural coastal communities reported fishing as a primary source of income, coupled with agriculture, livestock rearing and tourism. The hurricane had devastating impact on both, destroying fishing assets (boats, fishing nets) and agricultural land. It should also be noted that tourism represented an important source of income for half rural coastal communities assessed. In Point de Sable (commune of Port Salut) and Ile à Vache for instance, there were many restaurants and shops on the beach which have been completely destroyed as a result of the hurricane (see Figure 6 below).
All assessed coastal communities identified repairs to shelter and roads as a priority need. Heavy equipment was reported as urgently required to remove large debris material from primary and secondary road routes to enable access. As for other areas, latrines were identified as a priority need in collective shelters. To support early recovery, communities will require support to relaunch their livelihoods activities. These should include the distribution of seeds and instruments to resume farming, as well as nets and boats for fishing communities.

Rural non-coastal Lowland Communities

Recognisable by their distinctive appearance as more sparingly populated and spread out communities, rural inland areas located at low elevation are mainly comprised of houses constructed of basic materials such as thatch or metal sheet roofs, and mud/straw, and stone masonry walls. Across these communities the level of impact and vulnerability following the hurricane was closely correlated to their proximity to and accessibility from urban centres.

The rural area of Tiburon Valley was one of the most severely hit areas across all categories as it was closest to the hurricane track, already highly vulnerable, with no health services, no markets, and a single school (now completely destroyed) within its area limits and has been heavily flooded by the nearby river (see Figure 7). At the time of the assessment life had come to a standstill in the valley, with nearly all shelters fully destroyed and no private buildings or collective shelters to accommodate people temporarily. While some have made makeshift shelters from plastic and metal extracted from debris, many take shelter under banana leaves, protecting only from the sun but not rain. Other assessed rural inland lowlying locations outside of the Tiburon Valley (i.e. Béault, Barbois and Fourcan) have also experienced very severe damage to homes. However, unlike Tiburon, these communities are accessible by road and therefore more able to access shelter, markets and aid. Of them, Béault appears as the least vulnerable at the time of the assessment due to its proximity to Les Cayes and its distance from the hurricane track. Although the road between Béault and Les Cayes was damaged but usable by vehicles, two broken bridges prevent access to other nearby localities of the section communale (see Figure 8).
To meet their needs, ranging from health to market access, assessed inland rural communities relied on bigger towns nearby. Residents of Tiburon Valley have to walk 15-20 km through severely damaged and hazardous pathways to the nearest town of Tiburon or Les Anglais, while Bérault residents travel 45 minutes by foot or 15 minutes by motorbike to Torbeck, Barbois communities depend on Port Salut (1h30 minutes away by foot) and Fourcan rely on Tibolier and Jérémie towns for sustenance. While these markets seemed to fulfil the basic needs for these rural communities pre-hurricane, post-hurricane these communities lacked the financial means to procure basic food and non-food items. To cope with these constraints, some reported to be buying food items on credit. However a majority of the population was reported not to be in a position to do so and therefore as reliant on humanitarian aid which was still to materialise in half of the communities at the time of the assessment.

Water access in these communities has become precarious since the hurricane. Some, like Bérault and Barbois had access to respectively a water network and a spring catchment pre-hurricane, both of which are no longer functional since the hurricane. Most assessed lowland rural communities are located close to rivers, and have since the hurricane increased their use of river water for washing and drinking purposes, increasing the risk of water borne diseases. There are few to no remaining communal or private toilets in the assessed areas. Keeping in mind the precarious condition of hygiene and sanitation in rural communities, the installation of communal toilets was highlighted as a key need, especially in anticipation of renewed outbreak of cholera. Where existing prior to the hurricane, schools have also suffered severe damage (and being used as collective shelter such as in Bérault) or have been completely destroyed (many in Barbois for instance). Access to education has therefore suffered severely, as is the case across all types of area.

Pre-hurricane, the assessed rural lowland inland communities reported relying heavily on farming, livestock rearing and small commerce as a source of sustenance and livelihood. Ever since the hurricane passed, killing livestock, destroying farmlands, flooding food stocks and destroying livelihood assets (like farming equipment), assessed communities have not been able to relaunch their income-earning activities.

Amongst the areas assessed, Tiburon valley struck out to be the most acutely in need of urgent life-saving food, water, shelter and sanitation assistance. Other areas also require support to meet their basic needs, and restore their livelihoods. Ensuring availability of potable water was also heavily stressed upon while, food and shelter, similar to other areas assessed, were also pointed out as a top priority. On a slightly less urgent yet very important note, the collapsed bridge linking Bérault to Les Cayes should also be repaired.
Rural highland Communities

Areas lying on high altitudes were the most challenging to assess due to inaccessibility of roads leading to them (see Figure 9). As a consequence only two rural highland areas were assessed by REACH teams, both using helicopter flights. This inaccessibility also makes highland areas, many of which were very heavily affected by the hurricane, particularly vulnerable. Due to the location at high altitudes, these areas were more severely exposed to the violent hurricane winds. In addition, they were more prone to landslides and mudslides owing to their topography. This also rendered road routes inaccessible immediately after the hurricane, most of which are either still not utilizable or prone to be closed again because of landslide or mudslide.

Figure 9: Access constraints to rural highland communities

Strong winds and rain-induced mudslides and landslides damaged a significant proportion of shelters in rural highland areas. These risks are renewed whenever there is medium to heavy rain. Nearly all shelters have been destroyed in the town of Dansin (in the section communale Cosse of Les Anglais), which is close to the hurricane track, and wherein only the church was made of concrete and all other houses of metal sheeted roofs and mud or straw walls. At the time of the assessment residents took shelter under wooden planks or trees and often had nothing to sleep on. In the rural highland town of Bas Duchity (section communale Duchity of the commune of Pestel), the extent of damage is lesser but still significant, and all public buildings like church, schools and health dispensary have been transformed into collective shelters. Lack of latrines in these contexts of displacement is of particular concern.

Pre hurricane, both locations assessed in this category did not have public markets, but relied instead on street sellers for their basic items. With reduced means to invest in merchandise, it was reported that some sellers in Dansin were buying items on credit at Port à Piment and bringing them back to sell in Dansin. Thus the local markets are slowly recovering, but the ability of households to purchase items has suffered a setback due to the destruction of assets and loss of revenue inflicted by the hurricane.
With only one school, one water reservoir, no health care facility and no markets, Dansin was already a highly vulnerable area before the hurricane. The hurricane destroyed the school and damaged the access routes, making this highly isolated community severely exposed to risks. In Bas Duchity, most of the man-made water sources such as reservoir and water kiosks are either damaged or fully destroyed. Both locations assessed depend on rivers to fulfil basic water needs, though even the access to rivers was difficult due to presence of large debris. Both communities also reported that many children attended school outside the area prior to the hurricane, in close-by larger towns which can take up to 1 hour to reach by foot. At the time of assessment, all schools priory used by the communities were non-functional. While Dansin has no health care facilities, Bas Duchity has a few private clinics and a dispensary, one of which is completely destroyed but the others remain functional.

Assessed rural highland regions depended significantly on livestock rearing and farming. Farmlands in highland areas were devastated by the violent winds, mudslides and landslides, which also resulted in extremely high losses of livestock (80% were reportedly killed in Dansin). Mountainous regions seemed to have more trouble to access their land because of these secondary disasters and also struggled to rid their lands of flooding caused by torrential rains inflicted by the hurricane. They would need significant help, moving forward, to re-establish their livelihood generating activities.

With both locations in need of urgent in-kind food and shelter aid, Bas Duchity pointed out that they would like to use this opportunity for reconstructing shelters using better construction techniques. In the same location, it was informed that potable water remains inaccessible for the majority of the community except for a handful who are able to afford buying bottles or sachets of water from the shops. With respect to livelihoods, some farmers have started to recover some of the seeds which were sown or safeguarded (by placing under heavy rocks) prior to the hurricane but would need support (in-kind or financial) to successfully re-establish their activities. Livestock breeders should also be supported to re-establish their assets.

Figure 10: Impact on highland areas due to violent winds
Sectoral Findings

The following section analyses assessment findings by sector, as well as providing an overview of identified displacement patterns since the hurricane. Across all sectors, shelter was mentioned as a priority need throughout the assessed communities. When asked to mention their main sectorial needs, most communities (20) also mentioned food, followed by access to education (13) and healthcare (13). Communities also reported water access as a primary concern (11), while smaller numbers access to job and sanitation (both 8 communities).

Displacement

Loss of housing has been the main driver of displacement across assessed communities. At the time of assessments, the majority of displacement was within affected communities or in their close proximity, with people without inhabitable home being hosted by friends of family, or taking shelter in collective buildings such as schools, churches, health facilities and government buildings. When these options were not available within a community, there were reports of movement to other areas. This was notably the case for Randel and La Créole, where large sections of the population were reported to have moved to other towns. Other assessed communities did report some movement from their area but they were considered to concern a minority of the population only.

Across assessed communities nearly all schools, churches, government buildings and health facilities, if not destroyed, were functioning as collective shelters to house displaced people, and could be used to provide public services they were intended for at the time of the assessment. Collective shelters were reported as the primary refuge for those who lost their homes in 16 of the assessed communities, while 8 communities mentioned private housing as the main hosting option for displaced populations. In the most affected communities, such as Dansin, Barbois and Tiburon Valley, the lack of standing buildings have forced households to sleep in the open or to construct makeshift shelters with debris available.

As shown in the table below, 11 assessed communities, mostly urban centres, reported hosting predominantly people displaced from outside of the location, mostly from nearby rural areas.

Table 3: Locations reported to be predominantly hosting displaced people from outside own community

<table>
<thead>
<tr>
<th>Hosting displaced from outside own community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiburon town</td>
</tr>
<tr>
<td>Les Cayes - Morne-Coquille Nbd</td>
</tr>
<tr>
<td>Les Cayes - Centre</td>
</tr>
<tr>
<td>Beaumont town</td>
</tr>
<tr>
<td>Marfranc town</td>
</tr>
<tr>
<td>Camp Perrin town</td>
</tr>
<tr>
<td>Ile a Vache town</td>
</tr>
<tr>
<td>Dame Marie town</td>
</tr>
<tr>
<td>Grif</td>
</tr>
<tr>
<td>Roseaux town</td>
</tr>
<tr>
<td>Foucan</td>
</tr>
</tbody>
</table>

Displacement patterns are likely to evolve in the short term. On enquiring the intention of the communities to stay or leave their original towns in 30 days following the assessment, it was reported that large sections of the community in the urban centres of Tiburon, Beaumont, Port à Piment and Arniquet towns planned to displace elsewhere on a permanent basis. In other communities (Chardonnière town, La Créole and Morne-Coquille nbd of Les Cayes, central Jérémie, Marfranc, Randel, Grif, Roseaux and Fourcan towns) many community members reportedly planned to move temporarily elsewhere, to better meet their basic needs and will come back once the
situation has improved. Traders were mentioned as a socio-economic category especially likely to displace, both permanently and temporarily.

Shelter & NFIs

Significant damage has been caused by the hurricane in all assessed communities, which all reported shelter support as a top priority need. Prior to the hurricane, most shelter (with the exception of wealthier neighbourhoods of larger cities) were not built to withstand a hurricane of the violence of Matthew due to inappropriate building techniques, use of sub-standard material and building on hazardous land. The extent of damage caused by the hurricane to shelter was closely correlated to the type of shelter, the distance from the hurricane track and exposure to secondary disasters. Overall, the highest proportion of damage was observed in Tiburon town, Carrefour Gros Chaudière, Dansin, Randel, which were close to the hurricane track, as well as Barbois due to its high vulnerability already prior to the hurricane (see Figure 11). While coastal regions suffered damage due to large waves, winds and debris, many inland areas suffered from landslides or flooding due to proximity to rivers. A few towns such as Arniquet and Beaumont had in place flood warning systems but populations ignored warnings and hence suffered extreme loss of property and essential non-food items. A neighbourhood of Les Cayes even had a flood barrier in place which broke under the intense pressure of the river damaging many shelters in its way.

Figure 11: Examples of completely destroyed houses in Barbois

The most commonly reported damage to shelter was in the form of loss of the roof (see Figure 11, for the large majority of those made of CGI or thatch; as well as the collapse of walls in shelter constructed of stone (reported by 16 communities) as shown by Figure 12, concrete (stated by 9 communities), or a mixture of cement and lime (as reported during focus group discussions). Houses made from bamboo leaves, wood and mud-and-straw as well as shelters made from bamboo and intertwined palm leaves (locally known as clisse) were widely destroyed. The least damaged shelters were those made of concrete slabs (both roof and walls). These type of buildings are very seldom outside of larger cities.

Figure 12: Example of roof damage (Marfranc)  
Figure 13: Example of stoned wall damage (Beaumont)
The extensive loss of housing has left many people homeless and grappling to find some temporary refuge. As mentioned in the above displacement section, the most common temporary shelters for displaced population were public buildings, houses of friends/families and, where these are not available, makeshift shelters made from plastic and metal sheets (often extracted from debris). In all locations, it was reported that collective shelters were overcrowded and particular concerns were raised in relation to insufficient sanitation facilities in them. An IOM survey (released on 9 November) further details that approximately 58% of all temporary shelters are schools, 16% churches, 18% private building, 7% public building, 1% other amongst the 172 collective shelters it assessed.11

In some assessed communities where almost all shelters were destroyed and where there are no collective shelters available, people were reported and observed as living in the open air, covered by banana leaves and/or wooden planks. This was the case in the isolated communities of Tiburon Valley and Dansin.

When asked about priority material to carry out repair work, all 29 of the communities assessed reported to be in need of CGI, 24 stated wood and cement, followed by binders & screws (16), financial help (11), followed by sand, manpower, stones, bricks and technical knowledge in lesser yet important extent. Six communities stated they had no availability of such material in the markets in their town, while 26 out of 29 communities reported that they could not afford to buy such material even if they were to be available. Furthermore, while around 10 communities reported to be using debris material to carry out temporary repair works, remaining 18 communities are not doing so most often because the debris is too destroyed to be used as repair material, or they do not have access strong equipment to successfully use the debris.

Communities, at-large, need urgent shelter-related assistance to meet their immediate needs and to rebuild their homes. In the immediate turn, emergency distributions of plastic sheeting should be continued and upscaled, to provide basic shelter solutions to populations living in precarious makeshift shelter (see Figure 14), as well as to enable some displaced people with partially damaged houses (eg: loss of roof) to return to them. This will also facilitate returns from collective centres, and therefore re-establishment of services. In parallel, reconstruction should be supported, through financial and/or material inputs accompanied by technical assistance on disaster resistant building practices. Proposed shelter support should promote the use of good quality material (notably CGI) in line with Shelter Sector specifications. To promote this aid actors could consider using voucher systems combined with gradual cash transfers tiered by technical assistance.

Figure 14: Makeshift shelter using distributed plastic-sheeting (Gebeau)

11 IOM DTM, Haiti: DTM Update (9 November 2016)
http://reliefweb.int/sites/reliefweb.int/files/resources/DTM_HurricaneMatthew_Dashboard_I.PDF
Damage to shelters has also meant damage or loss of many essential NFIs. The majority of households were reported to have lost many or all items of personal and household hygiene, kitchen equipment and documents when their shelters were damaged. Subsequently, priority NFI needs were reported to be cooking kits (like basic utensils, oil), soap, mats to sleep on, mosquito nets, lamps, clothes and hygiene items for infants and women, bed sheets and jerry cans.

Food Security & Livelihoods

The Grand Sud region has traditionally been a predominantly agrarian region with 20 out of 29 communities assessed, especially rural ones, reporting private farming as their top source of food before the hurricane. To meet their daily nutrition needs, assessed communities also strongly relied on barter or trade of food items, livestock rearing and fishing, while some items like rice and bread were frequently bought from the market. The scenario has changed significantly since the hurricane. According to a WFP study the hurricane destroyed nearly 100% of crop lands, as well as an estimated 50% of livestock in the region, in addition to fishing equipment. In turn this led to a steep drop in production from private farming, livestock rearing and fishing.12 This is confirmed by the MSNA’s findings, which are hereafter divided into a first section on food security and a second on livelihoods.

Food Security

The following graph shows the reported main sources of food in assessed communities, pre and post hurricane (various answers were possible), indicating a clear shift away from farming, livestock breeding and fishing, towards a larger reliance on markets but also on donation from family and friends and distributions from aid agencies.

Figure 14: Main sources of food, pre and post hurricane

The loss of food stock and of farming land has forced people to turn to markets for meeting their food needs. However markets were also heavily affected by the hurricane. Public markets as well as informal commercial shops (called boutiques) which usually sold food have suffered damage to the structures where they were housed, as well as damage to stored food stocks, often due to flooding (see Figure 16). As a result, some assessed communities reported a lack of availability of food items in their markets (stated by 5 communities) or a lack of functioning markets (3 communities). However, the biggest barrier to accessing food is people’s limited or no financial means, preventing them from buying food items from markets, as reported by 17 out of 29 communities assessed. This is compounded by widely reported increased in prices for main staples. For example, in the regional hub of Les Cayes, corn and beans (red and black) increased by 50 percent and 16 percent, respectively, in October.13 The graph below displays top food barriers reported in assessed communities (multiple answers were possible in each community):

12 As reported by WFP through their Emergency Food Security Assessment carried out around 9 October 2016
Faced with a severe lack of access to food, all assessed communities reported to have adopted combination of coping mechanisms such as reduction of meal sizes (reported in 12 assessed communities) and reduction of number of meals (in 13 communities), as compared to pre-hurricane situation. In eight communities it was reported that some residents have been resorting to credit to meet their basic food expenses; while several other community members are unable to do so as they do not meet basic criteria (such as income or possession of collaterals) to be eligible for a credit. A sharp rise in informal lending has also been reported. In about half of assessed communities (13), including both urban and rural areas, it was reported that people were heavily reliant on donations from family and friends, and were frequently sharing resources with other households to contribute food supplies and cook together. Many communities (8) also reported widespread practice of selling livestock to raise money to meet basic expenditures. For the rest, some are turning to remittances from family and friends abroad while others rely heavily on humanitarian aid. The graph below shows food coping mechanisms that were reported in assessed communities.
While 20 out of the 29 communities assessed reported having received some type of food aid, 8 communities (see table below) reported they had not received any type of food aid at the time of the assessment. These included isolated locations like Tiburon valley but also some poor neighbourhoods of Jérémie and Les Cayes. In-kind food aid must be prioritised for most vulnerable locations as the food security situation continues to grow more acute without humanitarian help.

Livelihoods

With regards to livelihoods, agriculture was the main overarching occupation across regions (with the exception of Jérémie and Les Cayes), the coastal regions (both rural and urban) were also characterised by a heavy dependence on fishing, and non-coastal areas (both lowland and highland) by a higher prevalence of livestock rearing. With regards to gender livelihoods roles, key informants reported that males were likely to be engaged in agriculture (in 21 communities), livestock (16 communities), small scale commerce (15 communities) and fishing (12 communities), while women were more involved in agriculture and small scale commerce, as reported in 24 and 10 communities respectively.
The impact of the hurricane felt on each of the major livelihood activities is further detailed below.

1. **Agriculture**: This has been the livelihoods sector that was most severely impacted by the hurricane. A majority of communities confirmed that agriculture, a primary source of pre-hurricane income for most, was completely destroyed for nearly all resident farmers. Harvests or sowing is no longer possible primarily because of loss of seeds, presence of large trees (debris) in the farmlands (see Figure 21), loss of equipment, flooded land and lack of money to hire labour. Many types of crops were lost, as detailed below, for which agriculture assistance in the form of seeds maybe envisaged to aid livelihood recovery.

   Figure 20: Types of seeds/harvest lost or damaged due to hurricane

<table>
<thead>
<tr>
<th>Crop</th>
<th>Number of localities affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>13</td>
</tr>
<tr>
<td>Peas</td>
<td>11</td>
</tr>
<tr>
<td>Banana</td>
<td>7</td>
</tr>
<tr>
<td>Haricot beans</td>
<td>5</td>
</tr>
<tr>
<td>Pistachio</td>
<td>3</td>
</tr>
<tr>
<td>Rice</td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 21: Farmlands in Grand Anse (left) and Sud (right), now covered with debris
2. **Small scale commerce:** Small scale commerce, practised most commonly by women in the form of informal trade, selling of merchandise in small shops or public markets has been severely impacted by the hurricane. First, a lot of merchandise which had been stocked in private houses, shops or small warehouses was damaged due to severe flooding or collapse of the structure. Secondly, the ability to purchase stock also dropped as more urgent needs are prioritised in face of diminishing income possibilities. Many small scale shopkeepers were reported to have outstanding credits prior to the hurricane which they are now unable to pay. A key informant from Mackandal neighbourhood of Jérémie reported instances of women taking up work as prostitutes in order to obtain income and meet basic expenses, indicating the severe protection related setbacks that can result from such a drastic loss of livelihoods.

3. **Fishing:** Prior to the hurricane, most coastal locations (such as Port à Piment, Chardonnière, Dame Marie and Port Salut), rural and urban alike, were heavily dependent on fishing as a source of income. Fishermen communities in these towns were often already a highly vulnerable socio-economic group. They were reported as more likely to live next to the sea, where they also kept their fishing equipment, and less likely to have the means to build houses with sound construction techniques (due to limited knowledge as well as financial constraints). Consequently they were heavily impacted by the hurricane. Eleven out of sixteen coastal communities reported an impact on their livelihood activity of fishing, five of which reported that fishing was completely disrupted in their communities, while another five reported that only a few fishermen had the means to re-launch fishing since the hurricane. A key informant from central Jérémie reported that many fishermen were limiting themselves to calm water closer to the coast as they were afraid of venturing further out into the sea since the hurricane. Some communities also highlighted the need for livelihood support in the form of fishing equipment, as well as fish bait, to enable them to restart their activities.

4. **Livestock rearing:** According to the Emergency Food Need Assessment carried out by WFP immediately following the hurricane, around 50% of the livestock in Grand Anse and Sud was estimated to have been destroyed. Similar results were echoed during REACH MSA, as a majority of the communities (15 out of 18 livestock-rearing communities) confirmed that despite losses to livestock, some people in the community continued to have some kind of livestock, even if diminished compared to pre-hurricane levels. Amongst those who had livestock at the time of the assessment, some were said to be selling them to raise money or using them as a source of food. Impact due to destruction to livestock was especially felt by communities living in non-coastal lowland as well as highland areas.

**Water, Sanitation and Hygiene (WASH)**

The section below provides an overview, subdivided by findings related to (a) water and (b) sanitation and hygiene.\(^\text{14}\)

**Water**

Adequate access to portable water was already an issue of concern in the Grand Sud region prior to the hurricane. Little availability of potable water, coupled with bad or no water treatment practices, resulted in the high prevalence of a number of water-borne ailments commonly observed in the population. The hurricane has exacerbated this already concerning water situation, with damage or reduced accessibility to water sources reported in 21 of the 29 assessed communities.

Out of 29 communities assessed, 8 reported that their water network was completely non-functional as a result of the hurricane, while 7 communities reported damage to water network, resulting in reduced water supply. Six

\(^{14}\) WASH indicators were collected in partnership with and with the support of the WASH sector. Complementary information on WASH findings by location can be found in factsheet produced by the WASH sector
communities reported that their water reservoirs have been damaged and are at risk of being polluted due to exposure to poor sanitation and environmental pollutants, while hand pumps and dug wells were reported as damaged and not operational in 4 and 5 communities respectively. Furthermore 11 reported to have no water treatment whatsoever either at water source or at household level. Only 5 communities reported no critical damage to water sources. The table below indicates which assessed communities reported which type of damage.

Figure 22: Communities suffering critical damage to water sources

<table>
<thead>
<tr>
<th>Water network damaged, non-functional</th>
<th>Water reservoir damaged</th>
<th>Dug wells flooded and non-functional</th>
<th>Handpumps destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Les Cayes - La Créole Nbd</td>
<td>Tiburon valley</td>
<td>Tiburon</td>
<td>Port a Piment</td>
</tr>
<tr>
<td>Beaumont</td>
<td>Chardoniere</td>
<td>Port à Piment</td>
<td>Jérémie - Centre</td>
</tr>
<tr>
<td>Amiquet</td>
<td>Camp Perrin</td>
<td>Jérémie</td>
<td>Jérémie - Caracolie</td>
</tr>
<tr>
<td>Randel</td>
<td>Barbois</td>
<td>Arniquet</td>
<td>Dame Marie</td>
</tr>
<tr>
<td>Roche a Bateau</td>
<td>Jérémy - Gebeau Nbd</td>
<td></td>
<td>Marfranc</td>
</tr>
<tr>
<td>Berrault</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roseaux</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jérémy - Gebeau Nbd</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As a result of damage and in order to cope with lack of drinking water, entire communities have started using other potable water sources where available, creating pressure on water availability, or have resorted to non-protected water resources such as rivers and open wells for drinking purposes, increasing the risk and incidence of water borne disease. As show in the following pie charts, 21 of the 29 assessed communities reported having insufficient access to drinking water, while 12 communities reported that distance or waiting time for accessing drinking water were too long, and a further 7 communities reported drinking river water.

Some communities reported having received life-saving water assistance since the hurricane through the setting up of treated water sources and distribution network (such as in Port à Piment, Grif, Dame Marie), construction of wells (ex. Arniquet), water trucks (ex. In Beaumont, Roseaux), distribution of storage containers, water purification tablets and water filters. However, many other communities report being in need of immediate water assistance, which should be considered a priority in the face of the increased incidence of water borne disease, including cholera.

Figure 23: Access to sufficient quantity of drinking water

- Yes: 21
- No: 7

Figure 24: Problems with distance or waiting time to collect drinking water

- Yes: 16
- No: 12
Sanitation and Hygiene

Lack of latrines has been a chronic problem in the region, especially in rural areas, since before the hurricane. The hurricane has affected little existing sanitation infrastructure, as well as creating significant displacement towards collective shelters. In areas where displaced homeless populations have aggregated, the lack of latrines is of critical concern. Nearly all communities assessed are severely exposed to the risks posed by lack of proper latrines, lack of proper waste disposal and open defecation. The towns of Bas Duchity, Dame Marie, Grif and Marfranc were in particularly acute need of communal latrines as they grappled to deal with densely populated collective shelters and were already seeing a rapid rise in cholera and diarrhoea cases at the time of the assessment.

Figure 25: Reported extent of toilet access in communities assessed

Additionally, hygiene conditions were aggravated by a general lack of soap across assessed communities, both at the household and communal level. Seven communities reported having almost no soap at all in the resident households, while 17 communities reported only some households to possess soap. Knowledge on proper hand washing techniques was also reported to be weak or inexistent, especially amongst the more vulnerable sections of the communities.

Urgent response is needed to help communities facing their immediate sanitation and hygiene challenges. Across assessed communities sanitation and hygiene assistance should be prioritised, most importantly through installation of communal latrines (notably for collective shelters) and waste disposal systems in order to prevent further deterioration of communal and personal hygiene, as well as to prevent pollution of water sources which are being utilised by the communities. Furthermore, soap, female and infant hygiene items, which were highlighted as urgent needs must also be distributed along with solid messaging on good hygiene practises.

Health

Health care has been reported as a priority need in almost half (13) of the assessed communities. With most health services and facilities concentrated in urban centres, before the hurricane rural communities were already limited to small dispensaries or had to walk sometimes more than an hour to reach health care in urban centres. The passage of the hurricane exacerbated the already existing problem of limited accessible healthcare, directly injuring thousands, inducing an increase in the prevalence of disease and damaging the capacity of health services.

Among all assessed communities, half (14) reported an increase in the proportion of disabled people post-hurricane.

---

15 It should be note that reported health data is based on reports by interviewed Key Informants, who did not have a medical background. As such findings should be considered as representative of community perceptions rather than informed by medically trained individuals.
Table 4: Reported change in proportion of disabled people pre-post hurricane.

<table>
<thead>
<tr>
<th>Reported change</th>
<th>No. of communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highland</td>
<td></td>
</tr>
<tr>
<td>Increased</td>
<td>3</td>
</tr>
<tr>
<td>Do not know</td>
<td>1</td>
</tr>
<tr>
<td>Lowland</td>
<td></td>
</tr>
<tr>
<td>Increased</td>
<td>11</td>
</tr>
<tr>
<td>No change</td>
<td>9</td>
</tr>
<tr>
<td>Do not know</td>
<td>4</td>
</tr>
</tbody>
</table>

Furthermore 13 out of 29 assessed communities reported that the landscape of common health problems changed since the hurricane, stressing on the steep increase in cholera, diarrhoea and typhoid. Focus groups also revealed that malaria cases were also on the rise especially due to mosquitoes around stagnant flood water.

The prevalence of cholera was reported in 13 of the assessed communities. Since the hurricane, cholera incidence has increased across the region, with places like Randel, Dansin, Roseaux, Bariadelle and the Tiburon peninsula reported to be facing more severe cholera prevalence than some other locations. The number of suspected cholera cases has more than doubled as a result of the hurricane, reaching 5,840 on November, 5.\(^1\) Most areas are unable to curb cholera incidence, and struggling due to poor sanitation, lack of access to clean water and lack of access to health care. Three of the assessed locations (Randel, Chardoniere and Bariadelle) reported that a temporary Centre for Cholera (CTC) had been established by NGOs, while Jérémie, Port à Piment, Fourcan and Dame Marie also reported having received cholera treatment from humanitarian organisations. However, it is likely that cholera will continue being a challenge given the precarious post hurricane water and sanitation conditions of the majority of the affected communities.\(^1\)

The majority of assessed communities (20 of 29) also reported high prevalence of typhoid. Diarrhoea was also mentioned as a common health problem in 11 assessed communities, which also reported poor sanitation. In more limited amounts, problems such as skin diseases (arising frequently from polluted water), respiratory infections, pregnancy complications, post-traumatic stress as well as injuries were also reported.

![Figure 26: Main illnesses faced in assessed communities](http://reliefweb.int/sites/reliefweb.int/files/resources/161010_acaps_haiti_update_briefing_note_hurricane_matthewa.pdf)

Overall, assessed communities reported that access to primary health facilities significantly decreased since the hurricane. The reduction in number of facilities post-hurricane can be explained either by the destruction or damage caused to the structure where these facilities were housed (as is the case in Ile à Vache, Beaumont, Bas Douchity


\(^1\) ACAPS : Briefing Note 3 (10 October 2016)

[http://reliefweb.int/sites/reliefweb.int/files/resources/161010_acaps_haiti_update_briefing_note_hurricane_matthewa.pdf](http://reliefweb.int/sites/reliefweb.int/files/resources/161010_acaps_haiti_update_briefing_note_hurricane_matthewa.pdf)
and Marfranc), or because the facilities are currently being used as temporary shelters for displaced populations (such as in Randel, Grif, Arniquet, Béartul and Beaumont). The graph below shows the reported change in the availability in type of facility in assessed communities.

Figure 27: Access to healthcare reported, pre and post hurricane, by type of facility

![Chart showing the change in availability of facilities.](chart.png)

Even where health facilities were not extensively damaged, other barriers to access healthcare were reported in the form of lack of qualified staff (in Roseaux, Tiburon), lack of space (for ex. in Chardonnieres, Jérémie), lack of medicines (in Randel and Ile à Vache), lack of money to pay health costs as well as inaccessibility due to damage to roads (such as in Camp Perrin and Tiburon peninsula). In many rural areas, community members need to travel over 45 minutes – 2 hours on foot to reach health facilities in the closest urban centres. The graph below shows the types of barriers to access healthcare that were reported in assessed communities (multiple answers were possible):

Figure 29: Reported barriers to access healthcare at time of assessment

![Chart showing the types of barriers to access healthcare.](chart.png)
In addition to the cholera related health assistance, some other communities namely Bas Duchity, Roche à Bateau, Carrefour Gros Chaudière, Jérémie and Port à Piment also reported having received aid in the form of treatment for injuries from humanitarian actors. Despite this, the increased incidence of disease such as cholera, coupled with the severe impact of the hurricane on communities’ water and sanitation, point to the need of a continued and increased provision of emergency healthcare to affected communities. This should include the rehabilitation of damaged health structures, as well as their adaptation to the post-hurricane increased and differing needs, through more availability of right equipment and medicines, capacity building of medical staff, while supporting a further outreach of healthcare services to the most remote and isolated communities.

**Education**

Education, which had been seeing a slow yet steady rise in school enrolment rates over the past years\[^{18}\], was severely affected by the hurricane, coming to a standstill in many of the assessed communities. School buildings have been severely damaged or destroyed in many towns, while many of those that are intact or suffered minor damage are being used as collective shelters to host displaced homeless people. The lack of schools has resulted a huge drop in school attendance as children (both displaced and those residing in their homes) await schools to resume.

At the time of the assessment low attendance levels are closely correlated to vulnerability, broadly affecting isolated rural communities that were heavily hit by the hurricane, as well as the most vulnerable communities in urban centres who lack the means to consider alternative education options. Among assessed communities, it was reported that attendance rates have dropped nearly by half in major urban centres, by over 75% in smaller towns, or dropped completely to zero in most vulnerable and affected areas areas such as Carrefour Gros Chaudière, Jérémie – Caracolien rbd, Port à Piment, Randel, Roche à Bateau and Tiburon valley. This is shown in the graphs below\[^{19}\], which highlight the number of communities reporting different attendance rates for male and female children of school-going age. Note that girls are more affected by drop in school rates than boy, in line with a previously existing gender discrimination.

![Figure 30: School attendance rate (male) pre-post hurricane](image)

![Figure 31: School attendance rate (female), pre-post hurricane](image)

When asked about the main reasons for why schools were not functioning, 23 of the 29 assessed communities mention damage to schools, 15 of which reported that schools were destroyed. 9 communities pointed to schools being used as collective shelters as a key factor explaining why schools were not functioning. This can also be seen in the graph below (note that multiple options were allowed by community):

---

\[^{18}\] World Bank, Haiti: Four Things You Need to Know About Education in Haiti (12 March 2015)  

\[^{19}\] It should be noted that the displayed findings are representative of community perceptions as reported by key informants interviewed in each community. Discrepancies may therefore exist with the actual levels of school attendance
Many communities also reported extensive loss of school supplies, uniforms and books during the hurricane, which combined with the fees required to get into schools (mostly of private ownership) is putting a severe strain on parents already limited by financial resources.²⁰

Access to education was outlined as a key priority need by 13 of the assessed communities. At the time of the assessment many communities reported that schools were planning to restart from 7 November; however this did not materialise in most places as school buildings continue to be used as collective shelters and as families still struggle to arrange for basic needs and are not in a position to send children to school yet. To avoid too much further disruption to education, it is key to support the re-establishment of schooling through a three tiered approach. Firstly, school buildings should be made available again. This entails a reparation of damaged and destroyed buildings as well as the identification of appropriate housing solutions for families using schools as collective shelters. Secondly, and until school infrastructure is re-established, emergency schooling solutions should be envisaged, especially in communities where schools will take longer to rebuild. Finally, given the widespread losses of schooling equipment and of income sources, vulnerable families should be supported in the short term to enable them to send their children back to school.

CONCLUSION

Over a month after Hurricane Matthew, many affected populations remained in need of basic humanitarian support. At the time of the assessment many communities visited by REACH reported not having received any external assistance or in very limited quantity. The encountered precarious shelter and food security situation, coupled with the rising incidence of waterborne disease such as cholera, indicate the urgent need for a continued and upscaled humanitarian response. In turn, this will require the availability of additional resources, including funding by donor countries, as well as outreach to the most isolated, and most vulnerable, communities.

In parallel, affected populations should be supported in restoring their livelihoods and services, to promote self-recovery and the reconstruction of more resilient communities. An early recovery intervention by aid actors, through a suggested settlement-based approach leveraging (when possible) on market solutions, will support large parts of the population to rebuild their assets and self-sufficiency. Specific attention should be paid to supporting the most vulnerable populations in their recovery.

This report will hopefully support aid stakeholders to plan and target their response more effectively. As the situation evolves in areas affected by Hurricane Matthew, REACH will continue to support the response through targeted assessments and information management action.
ANNEXES

**Annex 1: Community Factsheets**
Community-specific factsheets are available on the REACH Resource Centre: [http://bit.ly/2laA0Fi](http://bit.ly/2laA0Fi)

**Annex 2: Participatory mapping form**

**Annex 3: KI interview questionnaire**