HAITI
HURRICANE MATTHEW
LESSONS LEARNED REPORT

April 2018

LOGISTICS CLUSTER

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EXECUTIVE SUMMARY

The Logistics Cluster Lessons Learned Exercise for the Haiti operation was conducted in April 2017, covering the period the Logistics Working Group was active in Haiti (October 2016 – March 2017).

On 4 October 2016, Hurricane Matthew made landfall in South West Haiti near Les Anglais as a very intense Category 4 Hurricane. It then crossed the department of Grande Anse provoking severe damage to road and Information and Communications Technology infrastructure, as well as housing and health facilities. Hurricane Matthew significantly impacted the country's humanitarian situation, affecting 2.1 million people.

Although the Logistics Cluster was not activated, on 6 October 2016, the Global Logistics Cluster deployed a Logistics Response Team (LRT) to support the government-led Logistics Working Group in its relief efforts with logistics coordination, Information Management and facilitating access to common services.

The Logistics Working Group established coordination units with dedicated staff in Port-au-Prince, Les Cayes and Jérémie, supporting over 150 humanitarian actors on the ground. Coordination meetings were held on a weekly basis in all three locations, in cooperation with the Government's Directorate of Civil Protection (DPC). Information Management, including GIS, was provided to support humanitarian organisations make informed operational supply decisions. Common logistics services were facilitated both in relation to upstream supply (air and ocean transport to Haiti), and in-country through storage and transport by air, road, and sea. In addition, an International Humanitarian Partnership (IHP) basecamp, with a hosting capacity of 35 people, was set up in Jérémie to offer a base to the humanitarian community working in the area.

Overall, the operation was found to be timely, relevant, effective and efficient in its response, and well received by the humanitarian community and participating partners. The deployment of an experienced and competent team in the early days of the hurricane was seen as a real strength as it allowed for close coordination between the Global Logistics Cluster team, WFP and the Government, resulting in a timely and effective humanitarian response. Substantial and fast support was also received from a variety of stakeholders (including local authorities, donors, and Global Logistics Cluster partners such as the International Humanitarian Partnership-IHP and the Logistics Emergency Teams (LET)[1]. This allowed to support humanitarian actors effectively through logistics coordination, Information Management, and facilitation of access to the services they needed to adequately carry out their relief operations.

[1] *LET – the emergency response partnership with Agility, Maersk Group and UPS to assist the Logistics Cluster with emergency response.*

The operation encountered several challenges, which mostly affected the efficiency of the response, especially from the planning perspective. Identifying the right logistics services and ensuring these were ready to operate in time was a challenge; different logistics assets were required in various locations (air services, sea services and primary/secondary road transportation), but defining precise requirements was difficult for all humanitarian organisations. Access constraints put a further strain on the response, as different ways to deliver relief items have to be considered (road, air and the sea) delaying some services, particularly coastal services.

A key lesson learned from this emergency response in Haiti is represented by the success of the preparatory work done:

- At local level: the relationship established between the Government and WFP, and access to relevant logistics assets through WFP (i.e. trucks); and
- At global level: the early deployment of a highly qualified team with the right set of skills including language and previous experience in Haiti, and with the pre-hurricane coordination and emergency support arrangements done with partners.

The key lessons from this operation to improve humanitarian response, also in reference to Logistics Cluster's preparedness strategy and its implementation phases, are:

Phase 1*: Mapping, network engagement and expansion of supply, logistics & stakeholders*

- Identifying and engaging local actors prior to an emergency to facilitate their participation in the response. Internet access is very low in Haiti (12 percent), making it even more important to target actors prior to an emergency to ensure they also have means of accessing the otherwise primarily online information from the Logistics Working Group.[2]

Phase 2*: Assessment and analysis*

- Understanding the logistics bottlenecks and possible gaps in various emergency scenarios, how to best respond to them, what assets are required and how to best secure that the assets can be easily deployed. This includes, for example, having road and access data for Haiti, and the identification of relevant landing crafts needed for coastal shipping, which is a critical aspect of operations in Haiti. The country's Logistics Capacity Assessment is available, however detailed operational data analysis is required, also in view of the potentially affected population, access to the markets, etc.

Phase 3: *Response planning and capacity strengthening*

- Training of national actors prior to emergencies both related to emergency response, but also in terms of local staff understanding key cluster tools such as the Relief Item Tracking Application (RITA).
- Training of humanitarian responders prior to and during an emergency in how a Logistics Cluster/Working group functions. This is a recurrent theme across operations, with a high number of responders and turnover in an emergency, there is always a need for orientation and instruction – for example, video instructions on how to fill in the Service Request Form (including guidance on how to measure cargo).

Phase 4: *Monitoring and evaluation*

- While the Special Operations project document had KPIs (overall reporting KPIs), the Logistics Working Group did not further define the performance criteria for the operation together with partners. It is recommended for future operations to define and prioritise what are the key performance indicators are for the particular operation in order to be able to measure and manage its performance.

A final recurrent theme is upstream supply coordination, which is not traditionally supported by the Logistics Cluster or Working Groups, but which is repeatedly requested to help provide a useful overview in emergencies. The Global Logistics Cluster organises global conference calls, however, these are not sufficient to address the information gap on supply information between HQ/Global Supply units and the visibility of incoming relief items on the ground. In each operation, there is a request to address this gap, and many attempts over the last decade have been made by various organisations. With its extensive partner base of more than 500 organisations supported in 2017, the Global Logistics Cluster is in a good position to establish an inter-agency working group or a study on how to best address this issue.

[2] The Telecommunication Development Sector, ITU, internet usage statistics


HAITI
Logistics Working Group – Concept of Operations Haiti , 20 October 2016
Main Hub
Logistics Hub
Coordination
Storage Capacity
Cold Storage Capacity
Information Management
Road Transport
Sea Transport
Heli Transport
International Airport
Domestic Airport
Port
Air Route (Round Trip)
Sea Route (Round Trip)
Heli Route
Primary Road
Secondary Road
Tertiary Road
National Capital
Major Town
Intermediate Town
Small Town
Village
International boundary
Department boundary
River
Surface Waterbody
N
0 5 10 20
Kilometers
Date Created: 20 Oct 2016
Contact: hq_im_rome@wfp.org
Website: www.logcluster.org
Prepared by: OSEP GIS
Map Reference: HTI_LC_CONOPS_A2L
Data Sources: UNGIWG, GeoNames, GAUL, LC, ©OpenStreetMap Contributors
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Jérémie
Port-au-Prince
Les Cayes
Les Cayes
NORD EST
NORD
ARTIBONITE
CENTRE
OUEST
SUD EST
SUD
GRANDE ANSE
NIPPES
HAITI
Gonaives
Saint-Michel de l'Atalaye
Pont de l'Estere
Desdunes
Dessalines
Mayisad
Liancourt
Petite Riviere de l'Artibonite
Saint-Marc
Verrettes
Boucan Carre
Torrarin
Etroits
Ti Palmiste
Anse a Galets
Palma
Saintard
Arcahaie
Fond Mombin
Lafiteau
Croix des Missions
Port-au-Prince
Petionville
Carrefour
Leogane
La Ferriere
Beau Sejour
Petit-Goâve
Grand Goâve
Miragoâne
Vialet
Petite Rivière de Nippes
Anse-a-Veau
Petit Trou de Nippes
Arnaud
L'Asile
Baraderes
Fond Palmiste
Pestel
Corail
Roseaux
Beaumont
Abricots
Bonbon
Jérémie
Dame Marie
Chambellan
Moron
Anse d'Hainault
Les Irois
Tiburon
Les Anglais
Chardonnières
Port-à-Piment
Roche à Bateau
Chantal
Beraud
Port-Salut
Maniche
Cavaillon
Aquin
Fond Des Blancs
Les Palmes
Bas Gaudou
Moussambe
Cotes-de-Fer
Jacmel
Seguin
WFP
wfp.org

1. INTRODUCTION

As part of the Global Logistics Cluster (GLC) strategy to ensure the cluster's accountability to all stakeholders and improve operations through learning from experience, a Lessons Learned Exercise (LLE) was commissioned for the Logistics Working Group Operation in Haiti. The exercise took place in April 2017, seven months after Hurricane Matthew, which struck Haiti in October 2016. The objective of the exercise was to:

i) Assess the performance of the Haiti Logistics Working Group[3] operations and activities undertaken in terms of relevance, efficiency, and effectiveness in identifying gaps and addressing needs through the services provided; and

ii) Draw lessons and recommendations from this operation to support the Haiti Logistics Working Group for further performance improvement and to support the development of the Global Logistics Cluster through the identification of best practices useful for other operations.

In terms of assessing effectiveness and efficiency, the mission has done this by comparing the objectives of the operation with specific outputs and feedback from interviewees and survey respondents. There were several standard Key Performance Indicators (KPIs) used for the Special Operations Project, to help measure operational performance, and which were all met. However, no KPIs had been separately set for the measurement of 'effectiveness' and 'efficiency,' therefore the assessment is subjective but qualified by the team's experience and the users' perception of performance.

Further information on the objective of this exercise, including the methodology, limitations and constraints, can be found in Annex 1.

2. BACKGROUND INFORMATION

2.1. HUMANITARIAN CONTEXT

Hurricane Matthew, a Category 4 Hurricane with sustained winds of 235 km/h, made landfall in Haiti on 4 October 2016 at 07:00 local time, causing widespread damage, flooding, and displacement. At the time of landfall, the hurricane was the strongest in the Caribbean since Hurricane Felix in 2007, and it caused the largest humanitarian crisis in Haiti since the 2010 earthquake.

[3] *In Haiti, the Logistics Cluster was not formally activated but an existing Logistics Working Group was re-activated with the same purpose as a cluster.*

Haiti is one of the poorest countries in the western hemisphere, ranking 163 out of 188 countries on the 2016 Human Development Index (Human Development Report 2016). Prone to natural disasters and affected by political crises, Haiti has suffered poor economic development, with almost 60 percent of Haitians living in poverty.[4] Ranked as the second last country (159 out of 160) on the World Bank's Logistics Performance Index 2016[5], the country faces tremendous challenges in ensuring access to its population by road, sea, and air. The challenge is further exacerbated by the risks associated with climate change and exposure to natural disasters. According to the INFORM Global Risk Index[6], which measures the risk of humanitarian crises and disasters, Haiti is placed 14th out of 191 countries.

Immediate priority humanitarian needs included water, sanitation, education, shelter, child protection, health and nutrition, indicating the multi-dimensional nature of the crisis, which coincided with an already increasing number of cholera cases, severe food insecurity, and malnutrition in the country.[7] Furthermore, striking just six years after the 2010 earthquake, the impact of Hurricane Matthew compounded the long-lasting effects of the 2010 humanitarian crisis adding layers to poverty, chronic vulnerability, and weak and limited infrastructure.

In addition, long political instability in Haiti has impacted disaster mitigation and preparedness efforts exacerbating the damaging effects of natural hazards. The hurricane hit just days before the Presidential and Parliamentary elections, which were consequently postponed for six weeks. While the government did appeal for international assistance in the days after the event, it did not declare a national disaster. The 2010 earthquake in Haiti, which affected over 1.5 million people, saw core structures of the government seriously affected, including human resources. Moreover, the government was side-lined and overwhelmed by international actors who had huge amounts of funding to deliver assistance due to the gravity of the disaster and highly successful fundraising campaigns. Everything that happens in the humanitarian domain in Haiti is still heavily influenced by these experiences, and the response to Hurricane Matthew was no exception. Following 2010, strong efforts were made for the recovery but also for emergency preparedness and capacity strengthening, including different training and support on the governance system[8], which reflected in the government taking a much stronger lead in emergency preparedness and the response to Matthew.

What's in a name?
Logistics Working Group vs. Logistics Cluster

Although the Logistics Cluster was not officially activated, immediately after the hurricane the Logistics Working Group was re-established (see footnote 7) to address logistics gaps impeding the humanitarian response. The establishment of the Working Group allowed coordination, Information Management and facilitation of common services for the humanitarian community, areas which would traditionally be covered by the Logistics Cluster.

The most severely affected departments were in the south of the country, mainly Grand'Anse, South, Nippes and South-East regions; the West and North-West departments were also affected. Hurricane Matthew provoked severe damage to road and Information and Communication Technology infrastructure, as well as housing and health facilities. An estimated 2.1 million people were affected, with 1.4 million people in need of humanitarian assistance, of whom 750,000 people required immediate assistance.[9]

The Government of Haiti made an official request for international assistance on 3 October, and although the Logistics Cluster was not officially activated, a government-led Logistics Working Group was established. A Logistics Response Team (LRT) was deployed to Haiti on 6 October to support the Logistics Working Group in its relief efforts. The objective was to help identify and address crucial logistics gaps impeding an effective and efficient response to the crisis by the humanitarian community. The key focus areas were logistics coordination, Information Management, and common logistics services.

[4] http://databank.worldbank.org/data/reports.aspx?source=2&country=HTI&series=&period=
[5] *http://lpi.worldbank.org/international/global*
[6] *http://www.inform-index.org/Portals/0/InfoRM/2018/INFORM%20Annual%20Report%202018%20Web%20Spreads%20v2.pdf?ver=2017-12-20-141446-540*
[7] *https://www.humanitarianresponse.info/system/files/documents/files/haiti_flash_appeal_-hurricane_matthew_oct_2016.pdf*
[8] *https://www.gfdrr.org/sites/default/files/publication/rfcs-2014-haiti.pdf*
[9] *Ibid*

2.2. LOGISTICS GAP ANALYSIS

The key logistics gaps identified by the Logistics Working Group and partners for reaching people in need of assistance were[10]:

1) Lack of access to the affected areas, due to blocked roads and damaged infrastructure, including bridges. This constrained the ability of responding organisations to meet the needs of the affected population in the Grande-Anse and Sud departments, as well as other affected regions. The main bridge on the Route Nationale 2, Petit Gôave, which linked the southern departments with Port-au-Prince, collapsed and limited access to affected areas. Some towns were completely isolated and remained unreachable via land for large vehicles two weeks after the storm made landfall. The extensive damage to the already weak transport infrastructure hampered relief efforts.

2) Insecurity and lootings posed an additional layer of complexity to the movement of supplies and distributions.

3) Although Port-au-Prince airport was not damaged and remained fully functional, support was needed to manage the rapid influx of large amounts of relief items.

4) Intermediate storage in the affected areas was not available, hindering dispatch of relief items to those areas. Common storage was needed in the regions to help the effective flow of relief to the most affected areas.

5) Due to the number and variety of actors involved in the response, coordination structures at field level, (particularly in Jérémie and Les Cayes) were necessary to facilitate and disseminate operational information and to align priorities and response activities among the different stakeholders.

2.3. LOGISTICS CLUSTER RESPONSE

The Logistics Working Group was re-activated[11] on 6 October in the aftermath of Hurricane Matthew, led by the Directorate of Civil Protection (Direction de la Protection Civile – DPC). WFP, as the lead agency of the Logistics Cluster, launched a USD 4.5 million appeal for the humanitarian logistics response operation on 5 October, representing approximately 4 percent of the flash appeal. The operational requirements were raised to a total of USD 10.3 million on 28 October 2016 due to revised humanitarian requirements when more information on the effects of the hurricane had been collected. In particular, the need for air assets was revised, as access by other means due to security and protection issues was not possible, contrary to initial assessments. The operation ended on 28 February 2017, 88 percent funded; 63 percent by the US, 9 percent by Switzerland, and the remaining 28 percent by Denmark, Finland, Japan, Lithuania and private donors.

[10] http://www.logcluster.org/document/concept-operations-haiti-20-october-2016

[11] The Logistics Working Group is a national logistics coordination mechanism established after the earthquake in 2010. Since 2010, the focus of the group has been on preparedness and ad hoc response to national crisis situations such as the 2014 drought. The group has had ad-hoc meetings over the last couple of years, and was 're-activated' after Hurricane Matthew to facilitate the coordination of the humanitarian response.

To meet the above logistics gaps and support the humanitarian community's efforts to deliver life-saving assistance, the Logistics Working Group, in close coordination with the DPC, facilitated integrated logistics services. While a draft operational plan and budget were ready on 5 October, the first coordination meeting in Port-au-Prince was held on 7 October and the first operational services were ready on 12 October. The principles of the response were to remain flexible to meet revised needs, priorities and build on local logistics capacities, including the capacities made available by responding humanitarian organisations and military forces. The key areas of the response are briefly outlined below.

Inter-agency logistics coordination
The Logistics Working Group established coordination units with dedicated staff in Port-au-Prince, Les Cayes and Jérémie, supporting over 150 humanitarian actors on the ground. Coordination meetings were organised on a weekly basis in all three locations, in cooperation with the DPC. The Logistics Working Group provided logistics coordination and Information Management support and facilitated the handling of incoming cargo. A Logistics Response Team (LRT) was deployed to establish a logistics coordination hub in Port-au-Prince with the primary objective of assessing the requirements, coordinating the logistics operation and facilitating access to common logistics services, while providing Information Management support including GIS/mapping services and cargo tracking.

Logistics Emergency Teams and the International Humanitarian Partnership
The Logistics Working Group benefited from the support of global partnerships agreements made with the private sector and emergency management agencies. From the private sector, the Logistics Emergency Teams (LET), Agility, Maersk, and UPS, availed their logistics capacities on a pro bono arrangement supporting the response efforts both in terms of upstream supply through airlifts and international ocean freight to Port-au-Prince. Also, inland logistics such as warehousing space, forklifts and trucks available allowed for cost- and time-efficient reception and primary transportation of aid. Three humanitarian charter flights, carrying in total 155 mt of relief items, 640 mt of shipping capacity, and 2,000 m² of warehouse space and trucking capacity were essential to quickly upscale the humanitarian response.

In-kind support was also well received and appreciated by the humanitarian community, allowing organisations to focus on their response capacity, thus maximising it. The warehouse space, equipped with the handling machinery in Port-au-Price, provided much-needed capacity for the handling of Non-Food Items, quite often voluminous and requiring large space. Together with the support provided for the reception of the international air freight, the LET also supported the decongestion at the airport, and swift cargo handling.

Joint efforts were made possible through experienced staff of UNHRD, the Logistics Cluster, WFP and LET members. Preparedness efforts continued to be supported by the LET, and the strong operational partnership continues to provide solid response support in emergencies. The International Humanitarian Partnership (IHP), a voluntary multinational operational network of eight government emergency management agencies in Europe, supported with a light basecamp with hosting capacity of 35 people. The camp was set up in Jérémie providing proper working environment and accommodation space to humanitarian organisations establishing their presence in Jérémie. IHP provided the initial setup of the camp, while WFP was in charge of the management and provided engineering support. The basecamp responded to the increasing number of humanitarian actors in Jérémie and the urgent need to provide assistance to people in the region, particularly in light of heavy damage to the infrastructure and facilities.

Set-up of operations and logistics hubs in country
A large volume of humanitarian goods was delivered through Port-au-Prince airport requiring an augmentation of the storage capacity. Storage facilities were arranged in coordination with the DPC both at the airport and in the hubs of Les Cayes and Jérémie at the onset of the response.

Coastal services
A landing craft with roll-on/roll-off capabilities was chartered to ensure delivery of humanitarian supplies to coastal areas. The vessel operated from Port-au-Prince to affected areas which were not reachable by land. One Port Captain was deployed to Haiti to manage the coastal shipping operation.

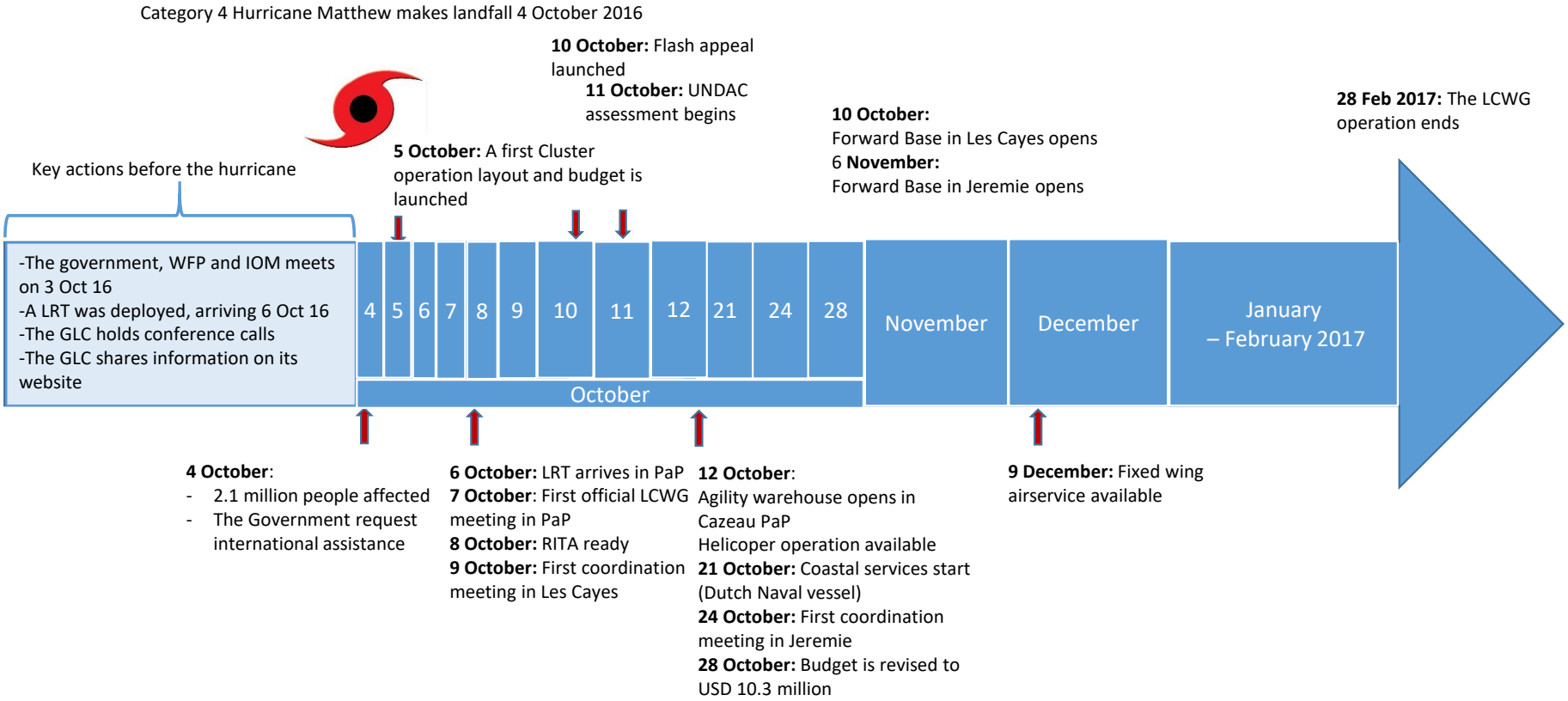
Civil-Military coordination
WFP, as the lead agency of the Logistics Cluster, liaised with national and international military entities, including the United Nations Stabilization Mission in Haiti (MINUSTAH), the US military (air assets), and the Netherlands Navy (a vessel deployed through the European Civil Protection and Humanitarian Aid Operations) to coordinate on civil military issues of the humanitarian response, focusing primarily on logistics operational and strategic coordination for the use of military assets in relief activities.

Provision of air passenger and light cargo services in-country
Air support was urgently required to enable the humanitarian community to access affected locations cut off due to damaged bridges and blocked roads caused by severe flooding and landslides. In total, three helicopters were deployed (two of 12-passenger capacity, one of seven) One medium-size helicopter was organised for passenger and light cargo transportation based in Port-au-Prince to serve locations west of the capital including Les Cayes, Jérémie and other affected areas as required.[12] The objective was to enable movement of humanitarian responders and light cargo such as emergency communications equipment and medicines to remote areas with limited facilities for fixed-wing operations, as well as to conduct rapid needs assessments for the humanitarian community. The helicopter later moved base to Les Cayes to serve hard-to-reach communities in inland and mountainous areas, while one fixed-wing aircraft was deployed to Port-au-Prince to continue regular passenger and light cargo transport between Port-au-Prince, Les Cayes and Jérémie.

Road Transportation
The Logistics Working Group facilitated access to a WFP fleet of 25 off-road trucks (capacity ranging between 2.5 mt and 17 mt, total capacity 175 mt) to enable transport of relief items to deep field areas.

[12] Bell 212 – up to 12 pax, approximately 2 mt payload; Bell 205 – up to 12 pax, approximately 3-4 mt payload; Sikorsky 76B – up to 7 pax, 1-1.5mt payload.

Figure 1 - Key activities immediately prior to Hurricane Matthew and until the Logistics Working Group operation ends on 28 February 2017.



3. FINDINGS AND RECOMMENDATIONS

Based on interviews with key stakeholders, survey results and desk review, the Logistics Working Group operation in Haiti following Hurricane Matthew was found to be effective and efficient in its response strategy and intervention. Overall, the operation is seen to have filled logistics gaps considered critical for the humanitarian community, ensuring humanitarian actors were able to meet the immediate needs of hurricane-affected populations.

3.1. MANDATE AND RELEVANCE OF STRATEGY

One of the main findings of the Lessons Learned mission was that the Logistics Working Group intervention was relevant. While the Logistics Cluster was not officially activated, the Logistics Working Group fulfilled the mandate of the cluster identifying and addressing logistic gaps which were exceeding national response capacity. The operating procedures, the global support from the Global Logistic Cluster, and donor support were similar to an officially-activated cluster and sufficient to support the intervention in a manner which respects humanitarian principles. Thus, the Logistics Working Group in Haiti functioned well as a coordinating mechanism with the objective of facilitating an effective and efficient humanitarian response.

A Logistics Response Team (LRT) was mobilized on 4 October allowing a timely establishment of necessary coordination mechanisms for the facilitation of common logistics services, fast formulation of the first intervention strategy (Concept of Operations draft was available on 5 October), set-up of critical common logistics services and Information Management functions. The appropriateness of the intervention strategy was confirmed during interviews and the strategy was widely known among the interviewees and survey respondents (60 percent of the survey respondents were familiar with the strategy - see annex 1 for the overview of the survey results).

It was found that the strategy and the procedures (the SOPs) were communicated effectively, both in English and French, and presented several times in bilingual meetings, which helped humanitarian actors become familiar and better understand the Logistics Working Group and how it could support the emergency response.

While the strategy, according to the survey respondents and those who had been interviewed, was appropriate, there is still room for improving support to the wider community, where 40 per cent were not aware of the strategy. This can be linked with the heavy staff rotation during the first phase of the emergency, as initial strategic discussions and presentations happened during the first weeks. While the Concept of Operations evolved, it appears that not all partners were familiar with the strategy and commented or questioned the approach. Familiarity with the Logistics Cluster's activities in general could support the understanding of the

process, therefore an "introduction" package to Logistics Cluster's activities for local partners during the preparedness phase may help promote further understanding of roles and responsibilities of the Logistics Cluster and contribute to more active participation in strategic discussions, including involvement at the Logistics Cluster Global Strategic Advisory Group (SAG) meetings.

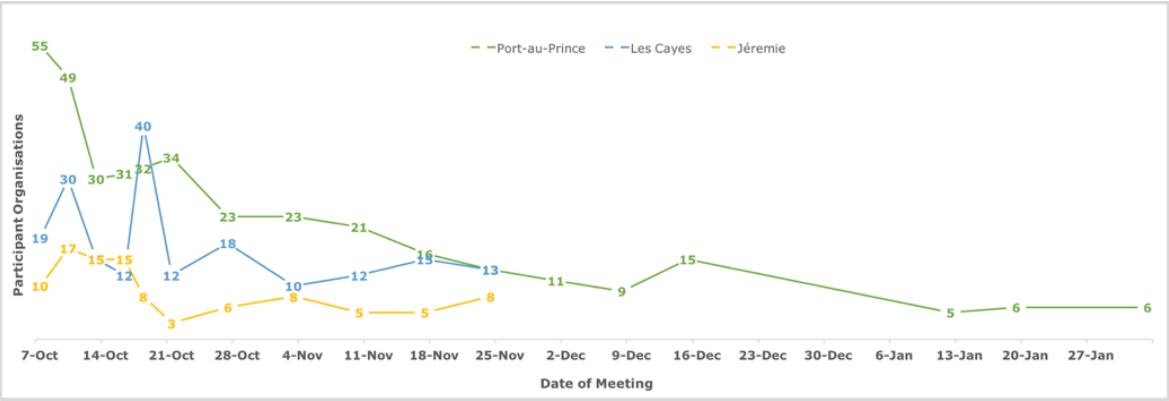
3.2. COORDINATION

The overall objective of the coordination was to "facilitate a unified effort on behalf of the humanitarian community and minimize duplication of efforts in support of the national authorities" (Concept of Operations). To this end and to help alignment of priorities and response activities among different stakeholders, a central coordination cell was established in Port-au-Prince, in addition to two additional coordination hubs at the Forward Logistics Bases (FLBs) in Jérémie and Les Cayes.

A high number of humanitarian organisations was responding with relief support, including more than 150 organisations the Logistics Working Group. In addition, close cooperation with national authorities was essential and even more so given the experience from the 2010 earthquake response where national authorities felt overrun by international support. Coordination was essential and from the interviews and the survey it was clear that the Logistics Working Group was effective in its coordination efforts mainly due to the following aspects:

1) **The coordination structure** – three coordination hubs and weekly meetings held together with national authorities (see Figure 2 for the overview of meetings held and number of organisations attending).
2) **Early deployment and preparation** – an LRT was identified prior to the hurricane striking and mobilised quickly, saving crucial time in starting up the response. In addition, the Global Logistics Cluster held coordination calls in advance of the landfall with humanitarian actors and LET members, as well as the WFP country office met which with the Government and IOM the day before the hurricane made landfall.
3) **Project timeframe** – as illustrated in Figure 2, the major operational coordination was required for the initial two-month surge period, which then continued for approximately four months. This indicates that the greater focus on the establishment of the initial coordination mechanism is critical, especially for the first two weeks, for the success of the operation. The initial speed of the implementation of the coordination mechanism (and the tools to facilitate the coordination – such as Logistics Bases in the field and Staging Areas) is therefore critical for the effective coordination mechanism to be in place.
4) **The quality of the implementation** – the leadership of the Logistics Working Group was highly commended, despite numerous staffing changes. The coordinator's role is critical in ensuring a successful response, especially at the onset of the emergency. Deployment of surge staff, with the **coordination competencies, language skills, and previous experience with the country**, contributed to a strong response and leadership in setting up the operation. The Terms of Reference of the Logistics Working Group Coordinators were well fulfilled, and the interviewees felt that appropriate staff were deployed with previous experience in Haiti and in similar emergencies. In addition, during the interviews and in the survey, the respondents expressed satisfaction with coordination meetings in terms of their usefulness, quality of meeting facilitation and one thing that has often affected meetings in the past, having the right profile of participants attend the meeting.
5) **The communication strategy** - the official languages of Haiti are French and Haitian Creole, although English is commonly spoken. Coordination meetings were held both in French and English, and key outcomes were explained to local authorities in French, underlining how sensitivities to the Haitian context were taken into account. The leadership of the Logistics Working Group showed flexibility in communication styles, ensuring that the strategy and messages were widely shared and understood among participants. Efforts made by the team were commended by meeting participants, and can be seen as a Best Practice and implemented in future responses where multiple languages are spoken.

Figure 2 - Number of organisations participating at Coordination Meetings in Port-au-Prince, Les Cayes and Jérémie



Key Lesson Learned: *Whenever possible, ensuring that the national language is used and/or translated during coordination meetings supports buy-in and improved participation from national actors.*

Best Practice: *Early deployment of surge staff with strong coordination competencies, language skills and experience with the local context as detailed in the Terms of References saves crucial time and makes the response more effective since the start.*

Inter-cluster coordination:
Strengthening inter-cluster coordination was seen as a need after the 2010 earthquake in Haiti. Pre-2010 government emergency preparedness did not focus on huge natural disasters such as earthquakes, but more on localised floods, mudslides and hurricanes. Following the 2010 earthquake, as previously highlighted, investments both by the government and the humanitarian community were made in recovery and preparedness. However, ambitions for strengthening the cluster and the inter-cluster coordination mechanisms appear to have been short of funding as the years passed. The consequence for the hurricane response was in particular seen in terms of difficulties in having a more integrated overview of needs and available resources/supplies making it difficult, for the overall humanitarian community, to determine operational requirements – and for the Global Logistics Cluster and the Working Group to identify logistics gaps. Requests for access to a common response pipeline to help identify gaps in the response were noted during the interviews, especially from the resourcing point of view, to ensure the most efficient and effective use of funds for the response.

In addition, customs clearance procedures represented a challenge for the humanitarian community despite the emergency procedure and an appointed focal point in place. Through the Logistics Cluster website and in coordination meetings, customs information was shared to facilitate understanding of procedures. However, the emergency procedure required the consignee to be government bodies, which raised the question of the ownership of the cargo once customs-cleared. As a result, many organisations opted for the standard procedure, which entailed going through the relevant ministries. The clarification on the emergency process on consignee and ownership is therefore recommended.

Enhancing the participation and coordination of local actors:
The vision of the Logistics Cluster is that *'vulnerable communities globally are effectively served in crises by a prepared and locally driven humanitarian logistics system'* (Logistics Cluster strategy 2016-2018). In Haiti, local organisations were not as involved in the Logistics Working Group as international ones, and some interviewed local organisations informed that they were not fully aware of the Logistics Working Group's strategy and types of services being provided. Following the earthquake in 2010, there were investments in training and emergency simulations in Haiti aimed at preparing the country for future emergencies, but there is still a need to identify

and target local actors to ensure inclusion, improve their understanding of coordination mechanisms and enable them to use these mechanisms. There is a need to design new ways of engagement and outreach to strengthen local actors' inclusion in preparedness and disaster response, in line with 'Grand Bargain' commitments (the package of reforms launched at the 2016 World Humanitarian Summit). At the same time, there is also a need for investing in locally-anchored preparedness activities, and supporting the design of a localized response strategy, for example through broadening the emergency responders' pool by building longer term capacity building via on-the-job training/shadowing of local NGOs and responders to ensure continuity of capacity and immediate surge.

Coordination in Jérémie and Les Cayes was also facilitated by the presence of Forward Logistics Bases, however, some partners noted that the communication and decision-making mechanism, especially at the start, can be improved to facilitate fast response. Presence in field locations could potentially be a way to ensure support to local actors who may not be always present in the capital. The Logistics Cluster could look into what role the field bases can potentially play in strengthening the localization of the response. For example, through a more proactive engagement of local actors during preparedness activities or having regular coordination meetings in field locations during preparedness activities or emergency responses. In Haiti, many humanitarian organisations and the UN peacekeeping mission have withdrawn from many departments, which makes continued field engagement in some areas challenging.

3.3. INFORMATION MANAGEMENT

The objective of the Information Management (IM) function was to facilitate sharing of key logistics-related information among humanitarian organisations to support actors in making informed operational decision-making, coordinate activities, and minimise duplication of efforts.

The Logistics Working Group strategy was to collect relevant information from humanitarian actors (humanitarian organisations, government authorities and other stakeholders), to share it along with other IM products (including GIS) through the establishment of a Logistics Cluster dedicated webpage for Haiti, in weekly meetings, as well as through a mailing list. The webpage was linked with ReliefWeb's crisis page for Hurricane Matthew. Most documents were translated to French to facilitate access and common understanding (92 percent of meeting minutes were available in French). Table 1 below shows the IM products published.

Table 1 - IM products

Information Management Products	Number
Meeting Minutes	54
Map	25
Situation Update	24
Forms & Guidance	13
Operation Overview	10
Infographic	5
Standard Operation Procedures (SOPs)	3
Schedule	3
Concept of Operations	2
Tools	2
Snapshots	1
Total	142

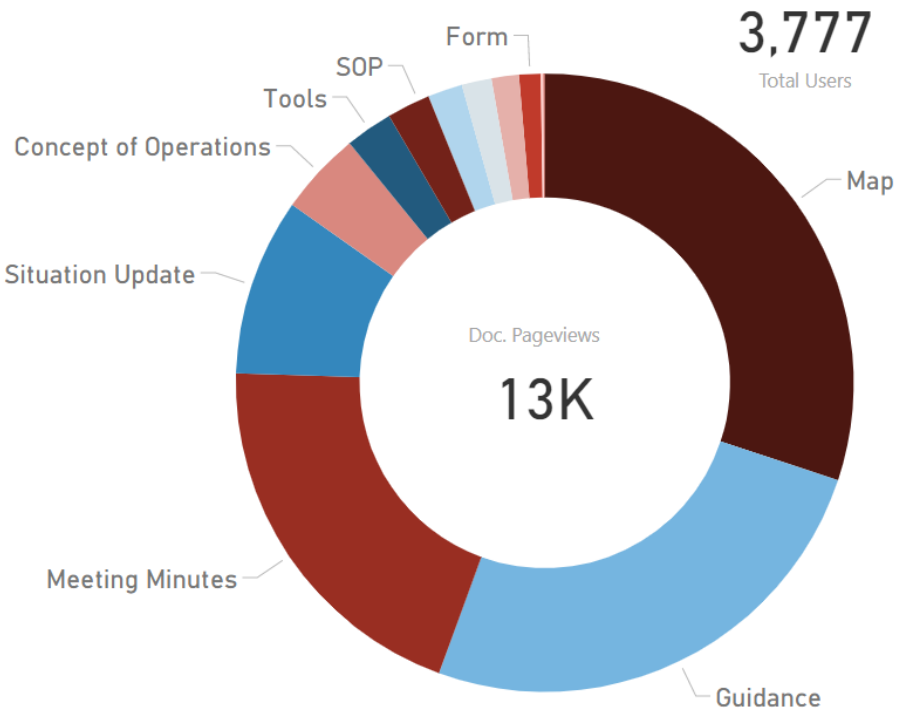
Situation Updates were first shared on 3 October, in anticipation of the emergency, by the Global Logistics Cluster support team based in WFP HQ, to help responders build a common understanding of the logistics needs and gaps as early as possible. The team closely monitored the progress and the route of the hurricane. Communication with the key actors continued, as well as with the WFP team on the ground. Uncertainty of the landing area made decision-making on international deployment difficult, given the limited resources available which meant that the advance team had to wait for the first flights after the hurricane had landed. Given the importance of the initial two-week period to set up a coordination mechanism, as previously highlighted, strengthening local actors is extremely important as well as forecasting and pre-deployments on a 'no-regret' basis.

Overall, the Information Management support provided by the Logistics Working Group was deemed as adequate, with information provided seen as relevant and useful for operational planning. Of surveyed participants, more than 70 percent of respondents found information to be useful, with 90 percent of surveyed respondents evaluating the Logistics Working Group's provision of information as either 'Very Good' or 'Good'. Furthermore, 64 percent of respondents felt that they had been adequately updated through the different communications channels. The translation of documents into French facilitated communication and information flow, and ensured local actors were able to understand information on the Logistics Working Group and its services.

However, Haiti has critical gaps in its information and communications technology infrastructure, which means that access to the Internet is generally limited amongst the population (The Telecommunication Development Sector, ITU, Internet usage statistics[13]). Figures from 2016 show that the rate of individuals using the Internet is only 12.3 percent, thus, placing Haiti amongst the lowest 10 out of 205 countries and territories, highlighting the general challenge on Internet accessibility in Haiti. A part of the responders, especially the local NGOs, faced challenges in accessing online information, which was also expressed in some of the interviews with national partners. The recommendation was for the Working Group to look at channels beyond the web for information dissemination, or in any case, to seek new ways to disseminate IM products to support local responders. This could involve mapping and engagement of actors during a preparedness phase allowing for fast contact and direct engagement during an emergency.

Figure 3 shows the page views documents of this operation had between October 2016 and January 2017 and Figure 4 shows the time these documents were accessed. Maps were the most accessed IM product, while guidance for the Service Request Form (SRF) was the second highest accessed information. Feedback from interviews on specific documents were related to the SRF, which was a document partners struggled with (see the next section for more information). Figure 4 and Figure 5 (LCA page views per month) show the importance of the IM products during the response start-up phase as well as the importance of the LCA in the aftermath of a disaster.

Figure 3 - Haiti Logistics Cluster Website – breakdown of document downloads between October 2016 and January 2017.



N.b. 'Guidance' indicates 'how to fill out SRF form', while the SRF form itself is under 'Form'.

[13] http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

Figure 4 - Haiti Logistics Cluster Website – document page views between October 2016 and January 2017.

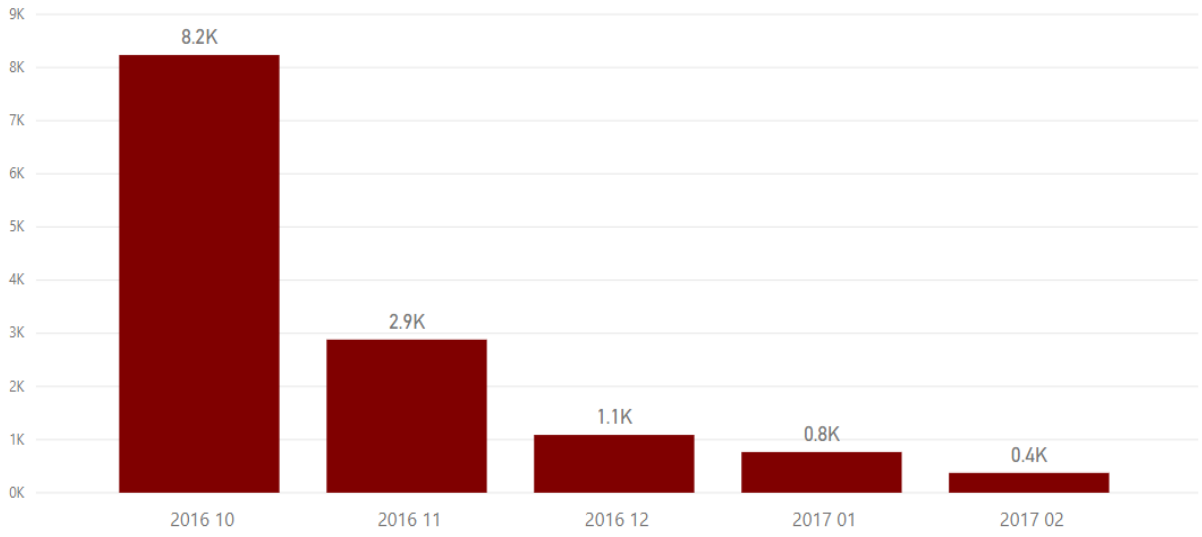
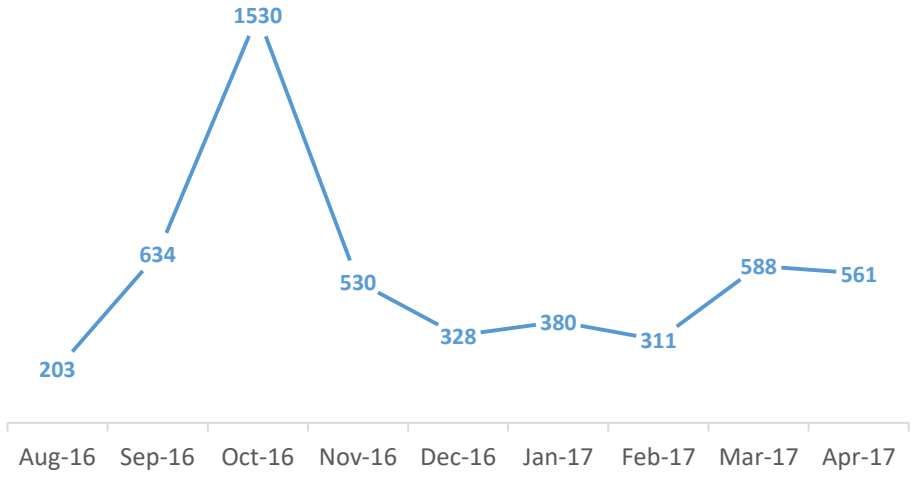


Figure 5 – Haiti LCA page views per month from August 2016 to April 2017



Key Lesson Learned: *To reach local actors in locations with low internet access such as Haiti, the Logistics Cluster could include alternative outreach methods to increase access to information, for example through mapping and engagement of actors prior to emergencies. In addition, field bases could be used as an extra means of identifying and reaching local actors in the response.*

Commodity Tracking

The operation has a mechanism to set to track and share information on all items stored and transported through the Logistics Working Group operation. The Logistics Cluster Relief Item Tracking Application (RITA) was used, and it was launched on 8 October. However, while there were internal and external procedures in place

for how to track relief items, the procedures were not always followed, particularly at field level. Lack of SRFs, release forms and inaccurate date on available forms led to problems with the management of relief items. The key problem was lack of time by logistics officers (especially in the field) to follow and enforce the procedures with users. Consequently, three field missions were undertaken with the purpose of identifying issues, train staff and users in procedures, follow up on previous recommendations and later support with closure of the operation. The issues found were well documented in the mission reports, which facilitated action during the operation, better understanding of the issues by all parties and action which can be taken after the operation.

In the future, it is recommended to ensure that the first team on the ground includes someone who is trained in implementing and tracking common services, allowing the team to properly set up the organisation and activities required to track the support provided to partners. This could also be done by a WFP country office or by regional staff who has been trained in advance and is supporting the operation. What is important is to ensure that there is adequate and qualified staff allocated to ascertain procedures are followed and items are properly managed and tracked. The risk of not doing this is that the management of relief items is not documented and there is no accountability to the partners for the items while they are in the custody of the Logistics Cluster.

Some interviewed partners requested that RITA's Service Request Form was simplified and better communicated, and to allow for the integrated services to be catered in one format (transport, warehousing, etc.). The document requires entry of relief item data such as volume and weight, which often poses a challenge to staff who may not work with this type of information in their day to day work. This is a frequently experienced issue, which can delay the operations. To facilitate correct data entry and thereby minimize time spent on the form by partners and the Logistics Working Group, a help desk could be considered, or a short video showing examples of how to calculate relief cargo information.

Key Lesson Learned: *To improve effectiveness and accountability of the relief item tracking, training of staff (country office or region), offline tools and short videos could improve capacity of national/regional staff and ensure that the tracking is implemented more effectively.*
Support to the operation through missions to understand issues and help correct them is a best practice, which as long as relief tracking is not smooth should be encouraged as a proactive measure to address issues in a timely fashion.

One of the critical challenges of humanitarian responses is the need for real-time information on the commodity pipeline and the available logistics infrastructure – which relief items are procured globally, regionally and locally, which ones are on route, where are they going and is there space for them along the supply chain. Efforts have been made through the coordination calls and cluster meetings at the global level, to enhance the upstream pipeline overview, however, the information tends to be confusing and scarce, especially for the recipient organisations in-country during the first phase of the response. An integrated dashboard was proposed by an interviewee including upstream supply information. The purpose would be to facilitate a real-time overview of the relief pipeline based on the available information, with the existing storage capacity across all sectors and detailed status to facilitate strategic resource allocation and support informed decision-making. However, many emergency responders do not necessarily have a full overview of their incoming cargo, making the process complex. Investment in pre-plotting of logistics infrastructure assets available, including the design of a common pipeline feature in for example the Logistics Cluster Preparedness Platform, could support improved planning and preparedness.

3.4. COMMON LOGISTICS SERVICES

The Concept of Operations did not state specific objectives for the common logistics services besides the overall objective of supporting the humanitarian community in its efforts to deliver life-saving relief items across affected areas in Haiti, and to help "optimize the use of logistics assets and logistics efforts". The services provided were to be seen as complement to the organisations' own logistics capacity. The key operational challenge in Haiti was access constraints in delivering relief items to the affected population. Access was difficult due to the effects of the hurricane, to the limited development of the logistics infrastructure in Haiti, and to security issues. The Logistics Working Group, therefore, facilitated access to intermediate storage and mobile

storage options, upstream air and ocean transport, and downstream air, sea and road transport, to help deliver the cargo to the affected population.

The common logistics services facilitated were generally well received, and both the surveys and interviews confirmed that the activities fulfilled specific needs and different, well identified gaps for various organisations. However, estimation of humanitarian needs was difficult due to lack of information, which was followed by an initial over-estimation of relief items requirements. This meant that the logistics operation put in place expecting a certain level of incoming cargo was not used to its full potential. In addition, food assistance took up a large part of the humanitarian supply in terms of volume, this given food items are a repetitive need.

The supply of logistics services was considered to have been quickly and adequately put in place, responding to the needs expressed by partners and also identified by the initial assessment. It appeared to be well coordinated with the UNDAC team, to allow for the quick estimation of partner expected requirements. It is extremely difficult to estimate the amount of cargo to be handled at the onset of an emergency and preference – in this phase of an emergency - will be given to ensure that the logistics infrastructure is sufficiently capable of managing the expected incoming cargo. Keys to enhancing efficiency lie in the preparedness phase: understanding scenarios (the effect of possible disasters – number of people affected and effect on the logistics infrastructure and supply options), and response planning (types of relief items required, key partners and their expected response, logistics assets required to facilitate supply). This, combined with having a strong coordination set-up when the disaster strikes, can set priorities and obtain information from the responders, and which based on as flexible contracts as feasible, can adjust the supply when sufficient information is available to plan the supply adequately.

Some interviewees indicated that the cessation of the free-of-charge services provided via the Logistics Working Group took place without adequate consultation or communication. Storage service provision at cost--recovery basis through WFP continued in Jérémie, following the cessation of the free-of-charge services, until the end of 2017 when the base in Jérémie was closed. As such, it was recommended that an improved culture of service provision and transition strategy be assured across future operations, ensuring a transparent consultation of the user group, communal decision-making around the discontinuation of services, and when decisions are taken, that they be communicated widely, effectively, and in a timely manner. [14]

Upstream supply support – Support from the LET companies
The LET was consulted prior the strike of the hurricane, and preparations for support were done while Hurricane Matthew hit Haiti. UPS and Maersk both contributed with upstream supply support – air and ocean transport.

Air
UPS was able to support with three airlifts shortly after the hurricane made landfall. Specifically, two airlifts, with a combined capacity of 80 mt, were organised from Panama to PaP and to Santo Domingo (with overland transport afterwards) arriving on 19 October 2016. They carried cargo on behalf five organisations (CRS, Irish Aid, UNFPA, UNICEF and WFP). In addition, a MD11 with a capacity of 73 mt was availed from Dubai to PaP carrying cargo on behalf eight organisations (Adra, Handicap International, IFRC, Solidarities, UNDP, WFP (Fittest, ETC), WHO, and World Vision International.

Supporting with air delivery to Haiti from two of the United Nations Humanitarian Response Depots (UNHRD) contributed to a faster and more cost-efficient response by:

- **Providing dedicated air supply for relief items**. Due to the emergency, lack of fuel availability for JET A1 airplanes was reported. Therefore, airlines did not approach Haiti at full capacity, limiting the available air supply. The provision of dedicated air transport for relief items helped to get them in faster compared to the 13 humanitarian organisations having to charter/find space on cargo flights on their own.
- **Alleviating congestion at the airport.** One of the planes was sent to Santo Domingo in the Dominican Republic with overland transport facilitated afterwards to the central storage facility in PaP. In

[14] This can be facilitated through the Service Mindset Training, which has been developed by WFP and used by the Logistics Cluster for several years now.

addition, the relief items were consigned to WFP, allowing a fast customs clearance and alleviating congestion at the airport.

- **Providing common flights departing from humanitarian hubs.** The fact that the planes could depart from the United Nations Humanitarian Response Depots (UNHRD) in Panama and Dubai, where a high number of humanitarian organisations have their first response depots, allowed several organisations to use the air supply and help optimize the use of air assets availed. The alternative would be for the organisations to either charter a full plane with the risk of not fully utilizing the plane's capacity, wait for a freight forwarder to fill a plane with complementary cargo, or wait for a cargo plane heading for Haiti. In addition, some organisations may also need to wait for confirmation of financial support from a donor prior to be able to buy the supply services. In all cases, the supply would take longer and be more expensive for most agencies. In a situation where many organisations or units are involved with the arrangement of the service (Logistics Cluster, UNHRD, donor company), it would be beneficial to arrange a procedure clarifying roles and responsibilities.

There are issues with in-kind donations through one organisation which still need to be clarified for a smoother delivery, including how to deal with the consignee issue, insurance, packaging (provision of packing lists) and Logistics Cluster coordination and management of the donation.

Ocean

Maersk supported with a donation of ocean freight allowing humanitarian organisations to use Maersk ocean transport free-of-charge across the globe to Port-au-Prince. In support of this, Maersk shared with the humanitarian community a transit times schedule from key sourcing areas to Port-au-Prince. An early version of the schedule was available prior to the landfall of the hurricane as part of the Logistics Cluster preparedness efforts. Thirty-one containers with relief items were transported from Europe, USA, Dubai and the Caribbean on behalf of seven humanitarian organisations.

The key benefits of the ocean transport provided by Maersk were:

- Information on supply options through the transit routes schedule helped make informed supply chain decisions. The schedule showed Haiti could be reached by ocean within two days from Panama or one week from some ports in the US.
- Bookings through the donation were prioritized by Maersk and therefore did not queue as normal cargo, which allowed faster delivery.
- Flexibility – due to the wide Maersk network, humanitarian organisations could send relief items from most locations worldwide.

In-country Common Services: Central Storage in Port-au-Prince and Field Logistics Hubs

One of the key logistics gaps identified in the first days of the emergency was the need for a central storage facility in PaP, which could help absorb the relief items delivered to Haiti by air or ocean and help support the onwards delivery to the affected areas. The LET companies also contributed to a fast set-up of the in-country logistics operation in Haiti, most notably with the provision of a central storage facility in PaP with 2000 m² capacity provided by Agility. All non-food relief items arriving in Haiti handled by the Logistics Cluster were channelled through this warehouse. Damco facilitated operational equipment including forklifts as well as specialized operators to help with the use of the equipment. Temperature-controlled storage, used for vaccines, was provided through Maersk. The services and support provided by the LET companies saved time and money for the humanitarian response, being an effective way of utilizing existing

logistics infrastructure to support the response.

Common storage was also set up in Les Cayes (1,680 m²), and Jérémie (2,080 m²). Mobile Storage Units (MSUs) were also provided to organisations to support storage needs in key distribution areas. From October 2016 to March 2017, 2,765 mt of relief items were stored on behalf of 23 organisations.

In-country Air Transport

Air transport was crucial in Haiti both due to physical access constraints but also due to security issues, which made transport by road challenging. Air transport was particularly needed in the departments of Sud and Grande-Anse, where communities had been cut off by floods, landslides and damaged infrastructure. Initially, the US military provided support, and afterwards, the Logistics Cluster received funds to be able to fill the gap. The objective of the air transport support was to facilitate both relief workers and relief items access to areas which were otherwise not reachable.

The Logistics Working Group facilitated through UNHAS the use of one fixed-wing aircraft deployed for regular passenger and light cargo transport between Port-au-Prince, Les Cayes and Jérémie, in addition to two WFP helicopters for passengers and cargo (3 mt capacity for both). Partners commended the choice of a smaller fixed-wing aircraft, which ensured a certain level of flexibility.

From October 2016 to March 2017, 619 mt of cargo and 3,400 passengers accessed transport to 47 different locations on behalf of 55 organisations. In terms of cargo, 20 organisations used the service. Ninety percent was sent by seven organisations (in terms of weight) – see details in table 2. Overall, the service was used by a high number of organisations to a variety of destinations and highly appreciated by the users.

The response was supported by a large scale of military deployment at the start, requiring close coordination with the different actors. The effective use of the assets was hampered in the start of the response due to lack of information, which made analysis and prioritization of destinations and requirements difficult. New partners were unfamiliar with the procedures on how to get access the assets. The later deployment a of Civil-Military Coordination Officer supported the relations, however, as the coordination setup during the initial few days was key to the emergency response, the deployment of Civil-Military capability to support the Working Group should be considered a priority in any response, especially for natural disasters. Prior mapping of existing assets and possible access constraints, along with information on existing programmes and targeted population may help both with the overview of assets as well as with the prioritisation of destinations. [15]

Logistics bottlenecks – Logistics assets required

The intervention strategy by the Logistics Working Group to support the humanitarian community was found relevant and appropriate, and can be used to inform future responses and as part of a preparedness planning process.

Specific logistics assets required include:

- **A landing craft** – this was needed due to the extensive hurricane damage to infrastructure, and mudslides and floods. A landing craft allowed coastal access, providing alternative routes to affected areas. Identifying and mobilizing a landing craft prior to an emergency can save time in a hurricane response in Haiti.
- **Air assets** – as a complement to the landing craft but also as a stand-alone requirement to be able to reach specific destinations either faster or because inland road transport from the coast is not a feasible option. The latter can be problem even where roads are functioning due to the high level of insecurity and level of lootings.
- **Off-road trucks** – trucks enabling access to deep field locations with difficult road access.

[15] This is now possible through the Preparedness Platform developed by the Global Logistics Cluster as part of the Preparedness project. See http://www.logcluster.org/preparedness/preparedness

Table 2 - Use of air cargo services

Organisation sending cargo	Percentage use (mt)	Percentage use (m3)
MSF Belgium	34.2%	6.1%
United Nations World Food Programme	14.4%	17.4%
Association of Volunteer for the International Service	12.4%	10.9%
Samaritan's Purse	9.3%	10.6%
Mission of Hope Haiti	8.1%	13.2%
Medecins Sans Frontieres	7.2%	12.5%
OXFAM Great Britain	4.5%	5.6%
Fondation pour le développement et l'encadrement de la famille haïtienne	1.7%	1.2%
Haven	1.6%	7.6%
Finn Church Aid	1.5%	2.2%
Operation Blessing	1.0%	2.2%
Catholic Relief Services	1.0%	2.5%
International Organisation for Migration	0.8%	3.8%
J/P Haitian Relief Organization	0.6%	0.2%
Adventist Development and Relief Agency	0.4%	0.5%
Swiss Agency for Development Corporation	0.3%	0.5%
World Health Organization	0.3%	0.4%
ACTED	0.3%	0.3%
Water Missions International	0.2%	0.6%
Global Medic	0.1%	1.9%
Grand Total	100.0%	100.0%

Based on the feedback and interviews, in-country air cargo services were particularly useful to ensure access to all affected areas. The helicopter enabled humanitarian partners to reach locations which were difficult to reach due to either road conditions or due to security considerations. Had the helicopter not been available, the result would have been an unequal distribution of aid, which could have had political consequences as well. Users commended that given the context, it was a good response, despite some delays on the uptake of the operation. The service clearly addressed the needs of the humanitarian community, allowing organisations to reach beneficiaries regardless of their location.

Road Transport

The objective of the road transport was to support the delivery of relief items from the centre (Port-au-Prince), as well as from the field hubs, to the affected areas affected. The Logistics Working Group facilitated the use of 25 off-road trucks that were deployed by WFP, with a total capacity of 175 mt. Given the state of the infrastructure in Haiti and the damage after the hurricane, this fleet worked effectively in supporting delivery to otherwise hard-to-reach areas due to the different types and sizes of the trucks which enhanced the flexibility of their use.[16]

A total of 7,801 mt was transported by road on behalf of 36 organisations. WFP was by far the main user, accounting for 75 percent of the weight of the cargo transported (85 percent in terms of volume transported). IFRC, ACTED, WHO, Save the Children International and the DPC were the next largest users (by weight) accounting for between one and two percent of the total each. WFP's and Food Security Sector volumes were the highest as WFP, owner of the fleet and manager of the contract, sought to reduce the idle time for any transport and the cost of the fleet was shared between the Special Operation and WFP food projects. Thus, the

[16] The trucks ranged in load capacity from 2.5 to 17 mt capacity (1x Mack 17 mt, 1x International 15mt, 1x DAF 14 mt, 21x Renault 7.5mt, and 1x Mitsubishi 2.5)

percentage of the use of the services by WFP was considerably higher than other users. Users commented that the Logistics Working Group response, reaction and adaptation were fast and highly appreciated.

Key Lesson Learned: *Preparing for an emergency by analysing data, identifying gaps in transport requirements and planning how to address them saves time and money in the response phase and allows for better reach of beneficiaries. In this case, identifying potential landing sites, available off-road and light vehicle transport capacity, and arranging for its easy activation in an emergency are key to reach people in Haiti. The capacity can be provided through the government, humanitarian actors, the military or the private sector, each requiring a different modus operandi for activation.*

Sea Transport

Due to the access constraints to reach the affected population by road, sea transport was a crucial element in facilitating the delivery of relief items.

The Logistics Working Group facilitated the use of sea transport services provided by the Royal Netherlands Navy, coordinating the booking, loading, prioritisation and scheduling. It also facilitated access to two small landing craft contracted locally by WFP, and subsequently chartered a large landing craft. The Dutch Navy vessel started servicing 14 October and the others at the end of October and at the end of November respectively.

A regular service was established, using coastal maritime transport with two landing crafts with a total capacity of 110 mt, made available by WFP from Port-au-Prince for deliveries in Grand'Anse and Sud. In order to meet transport needs and reach coastal areas that were not accessible by road, WFP subsequently chartered an additional vessel with a 500 mt capacity. The vessel carried out five rotations and the Logistics Working Group facilitated the transport and unloading of 1,760 mt of humanitarian aid on behalf of WFP, ACTED and IFRC in Anse d'Hainault, Grand'Anse Region. The landing craft provided more access and was seen as a better supply option to access coastal communities given the number of looting incidents on the road, however, it was not fully utilized due to the limited number of destinations. It was also a challenge to determine the phase out of the service, as the demand was low, but the coastal transport service was essential for deliveries in specific locations.

Partners agreed that there were some issues related to the sea transport service, primarily in terms of speed of deployment and boat choice, as the large landing craft took considerable time to identify, charter and position. It was recommended to research options for a more appropriate landing craft allowing access to additional areas, which would facilitate increase relevance of the service to more partners, though some partners still had challenges in arranging the reception, or issues for onward transport to reach the beneficiaries due to security and protection issues. A pre-assessment was proposed of which areas can be accessed, the types of vessels available, taking all options into consideration, including contracting outside of the country.

Joint NFI Pipeline

A joint NFI pipeline was set up with IOM to support with an overview of what cargo was incoming and where it was located, however, this was an additional challenge faced by the Logistics Working Group team, especially at the onset of the emergency, as this was not planned during the preparedness phase and had to be developed during the response. Interviewed partners noted the importance of improved coordination around relief items as there was little transparency in who was importing what and to where. The joint NFI pipeline was an attempt to achieve this overview, ensure a more effective and efficient humanitarian operation overall, and avoid compartmentalized or silo-ed humanitarian assistance.

Regular calls at the global level were made in an effort to grasp an overall pipeline from the partners, however, this proved difficult with the huge number of actors and parallel pipelines. Information on incoming cargo was not available until it arrived in-country. If there is a need for this type of overview in future emergencies, it is recommended to develop the framework and contacts with key actors prior to the emergency and test it beforehand. A recommendation is to focus on 10 key actors in terms of size of response (volume of relief items supplied for example) based on historic response data. Receiving information from these would most likely cover

the main part of the supply and could provide significant information on how the supply requirements will be in a response.

Customs Clearance

During the Hurricane Matthew response, Port au Prince airport had a very limited inbound capacity. Inbound cargo was shipped by partners under both DAT[17] (Delivered at Place) Incoterms. In many cases, during the initial phase of the response, inbound cargo, delivered to the airport under DAT Incoterms, remained on the tarmac for prolonged periods of time pending customs clearance, resulting in cargo loss and damage by the rain.

Advising partners in advance on appropriate Incoterms for shipment and ensuring reliable customs and forwarding agents with suitable or bonded warehousing are available, if possible outside of the airport, could have reduced the length of time cargo was kept at the tarmac, and would have consequently reduced the number of partners at the tarmac receiving/clearing cargo at the same time.

3.5. PREPAREDNESS

The emergency response transitioned to preparedness activities as the operation was phasing out through Q1 of 2017. The Global Logistics Cluster, in close collaboration with the DPC, led a multi-sectoral project to support the national government, strengthen local preparedness and response capacity and develop mapping and analysis tools.

Investments in preparedness in Haiti, prior to Hurricane Matthew, paid off significantly, especially building on the experience of 2010 and particularly with the government. However, preparedness activities were weakened by the lack of sustained funding. In the case of WFP, lead agency of the Logistics Cluster, its operation had been downsized significantly including its supply chain function, resulting in heavy reliance on the surge team for the response. The Global Logistics Cluster was instrumental in supporting this surge.

Despite the scale-down, the relationships between key government counterparts (in particular in the DPC) and the Logistics Working Group, pre-dating Hurricane Matthew, ensured that the response began with a pre-established level of trust and strong partnerships. The response further highlighted the importance of preparedness, and Haiti has been chosen as one of the focus countries for the Logistics Cluster to engage in preparedness efforts. These efforts are part of the global strategy to engage with key national (government, civil defence, NGOs) and international (DART, etc) actors in countries at high risk of natural disasters to ensure collaborations are strong previous to an emergency, as well as to include logistics into national emergency simulations scenarios.

Post-disaster asset management was seen by some partners as a critical segment of any logistics working group exit strategy. Logisticians can carry out post-disaster asset management in countries at high risk of natural disasters and investigate strategic prepositioning of remaining NFIs, which could serve for future emergency responses, reducing waste and improving efficiency, reducing the need to call in additional NFIs when they are already present in country.

> ***Key Lesson Learned:*** *Preparedness pays – in countries at high risk of natural disasters, investments in preparedness can improve effectiveness and efficiency of an emergency response. Improving preparedness can be done via pre-establishing relationships with government counterparts, joint simulations, data collection and analysis, and prepositioning key NFIs for an eventual response.*

[17] *'Delivered At Terminal' - this Incoterm requires that the seller delivers the goods, unloaded, at the named terminal. The seller covers all the costs of transport (export fees, carriage, unloading from main carrier at destination port and destination port charges) and assumes all risk until arrival at the destination port or terminal. The terminal can be a Port, Airport, or inland freight interchange, but must be a facility with the capability to receive the shipment. If the seller is not able to organise unloading, they should consider shipping under DAP terms instead.*

4. OVERVIEW OF KEY RECOMMENDATIONS

KEY RECOMMENDATIONS	
i.	Invest in emergency preparedness.
ii.	Strengthen surge capacity and encourage early deployment.
iii.	Strengthen engagement of local partners.

LOGISTICS CLUSTER FUNCTION	
1. COORDINATION	
1.1	**Pre-deployment of staff during the readiness phase:** prior agreement with partners during the preparedness/readiness phase where possible, saves time in staff deployment and facilitates a faster response. As part of surge workforce planning, it was suggested also to bring in more junior staff to support the senior staff. This can be a standard practice of the cluster lead agency as part of on-the-job training to ensure continuity of cluster capacity in the country and Country Office and longer-term capacity building of the emergency responder pool. The Logistics Response Team Training (LRT) provides a comprehensive view of Logistics Cluster operations, and local, regional and global LRTs, linked with the potential deployment to different Logistics Cluster operations for on-the-job training to consolidate learning, can be developed to establish a pool of responders who are familiar with the system. Joint Emergency Response simulations also supported the effective response and may facilitate the coordination within different government bodies for effective response planning. **Leadership: as a best practice**, continue to ensure deployment of surge capacity with previous operational experience and with knowledge of the country and its context. It is recommended to review the surge strategy on replacement, and establishment of "push" system, rather than "pull" mechanism at the readiness stage or at the onset of an emergency.
1.2	**Preparedness**: Long-term relationships with the Government and key partners in country have saved time and ensured higher efficiency in coordination. Investing in preparedness with national partners is recommended to ensure trust and strong partnerships. Regular joint training and simulations with key emergency responders are essential for maintaining readiness for emergency response. It is also recommended to work closely in scenario building, integrating logistics and cluster activation in scenarios of national-level simulations. Learning about the civil protection agencies and regional bodies present in the country can encourage knowledge exchange.
1.3	**Establish an initial "Push" mechanism:** The Logistics Cluster can spearhead access and address disconnection between different logistics services. In the initial phase, a specific strategy may be adapted with other sectors in pushing cargo to the field while detailed assessments continue. The importance of establishing the coordination mechanism quickly has been highlighted and early deployment of key staff should be encouraged. A framework for 'no-regret' should be agreed during the preparedness/readiness phase based on the available data. Agreeing to establish hubs quickly and push prepositioned and arriving cargo out proactively to field hubs, with a simplified mechanism and delegation of authorities for cargo release by the partners, allows for a decision-making for the partners and facilitates faster provision of assistance. Once the cargo arrivals are stabilised, normally within two months, the strategy can shift to a 'Pull' mechanism, facilitated and coordinated at the capital. The timeframe of the shift may differ and agreed through a WG as part of the preparedness action.

1.4	Advocate for improved **coordination of multi-cluster cargo** to improve effectiveness and efficiency and to avoid compartmentalized humanitarian assistance. As part of the preparedness actions, digitalization and analysis of data should be developed.
1.5	Explore ways to better engage with local actors including local NGOs via non-traditional means, such as building local capacity by investing in training, simulations, etc. to prepare for future emergencies. More visible, better prepared, empowered local actors create a more inclusive and localized humanitarian response, in line with the Grand Bargain.

2. INFORMATION MANAGEMENT

2.1	**Develop an Integrated dashboard solution** showing cargo pipeline, storage capacity across all sectors and detailed status of services to facilitate strategic resource allocation and support informed decision-making.
2.2	**RITA** – Review whether it is possible to simplify the SRF and to be better communicated, combining services within one form. Improve communication on form guidance or improve the form itself. **RITA** – Aim to roll out RITA earlier by deploying RITA dedicated staff, pre-training CO staff, providing emergency training via tools that can be viewed offline (memory stick/video/infographic).

3. COMMON LOGISTICS SERVICES

3.1	Improve **culture of service provision** to ensure that any potential changes to the services are well communicated, ensure consultation of users group and communal decision around discontinued services. When a decision is taken communicate effectively and in timely fashion.
3.2	**Plane** – the choice of a smaller fixed-wing aircraft was appropriate and enabled flexibility. The pre-assessment of airports was perceived as very solid and the air transport appreciated.
3.3	**Strategic prepositioning of key items** – post-disaster asset management. As part of the exit strategy logistics specialists can carry out post-disaster asset management in countries at high risk of natural disasters, via strategic prepositioning of leftover NFIs which could serve for future emergency response, reduce waste and improve efficiencies. This also reduces the need to call in more NFIs as they are already present in country.
3.4	**Coastal Shipping Services:** It is recommended to review the optimum type of vessel/landing craft and the availability to speed up the deployment process to ensure access. Pre-assessment of access locations, types of vessels available and suitable options to allow access to more remote areas, taking into consideration all options, including out of country.

4. GLOBAL LOGISTICS CLUSTER SUPPORT (TBD)

4.1	**Investment in Emergency Preparedness** – In cases when the Logistics Cluster is not formally activated, it is recommended to build a strategy on how to facilitate the government coordination role and support the government's response capacity.
4.2	**Strengthen engagement of Local partners** – review on local partner engagement strategy to develop ways to engage key local partners as they will be the first-responders.

ANNEX 1 – CONTINUATION OF INTRODUCTION

1.1 LESSONS LEARNED EXERCISE OBJECTIVES

The overall objectives of this Lessons Learned Exercise were:

To assess the performance of the Hurricane Matthew operation and the activities undertaken by the Global Logistics Cluster and the Logistics Working Group in Haiti in particular in terms of relevance, efficiency and effectiveness of the operation in identifying the gaps and addressing the needs of the humanitarian community through provided services.

To draw lessons and recommendations from the Haiti operation to support the Logistics Cluster for further improved performance in future operations, but also to support the development of the Global Logistics Cluster through the identification of best practices across operations.

The reviewed time period was from the onset of the emergency until the closure of the Special Operation in February 2017.

1.2 METHODOLOGY

A mixed-methods approach was used for this exercise, using qualitative and quantitative data as well as literature review. Primary data collection was mainly qualitative from key informant and group interviews, but also quantitative from a survey and the Logistics Cluster's tracking system. In addition, an analysis of the Haiti Logistics Working Group website was conducted using Google Analytics. Secondary data collection was via a review of key documents.

A mission to Port-au-Prince was conducted by the Lessons Learned team during which key actors involved in the response were consulted, including the Government, national and international NGO partners, key private sector actors and WFP and other UN agency staff. A full list of consulted parties can be found in annex 5. Other project locations including Les Cayes and Jérémie could not be visited due to access limitations and because project activities had ended.

Key areas of enquiry were the Logistics Cluster's core functions at country level as defined by the Inter Agency Steering Committee – the sectoral coordination, Information Management and the facilitation of common logistics services. In accordance with the evaluation criteria of the OECD Development Assistance Committee (DAC), this exercise looked at the relevance, efficiency and effectiveness of the Logistics Cluster response.

Desk Review: The desk review concentrated largely on cluster-related documents such as project documents, Concept of Operations, meeting minutes, donor reports, etc., and inter-agency key documents, such as the various Humanitarian Response Plans.

Survey:

A survey was conducted in April 2017, among the Logistics Cluster partners in Haiti and staff involved in the response who had since left. Overall 71 responses were received, of which after data cleaning 71 could be used for analysis, representing 100%.

More than 70% of respondents worked with an INGO, and 13% worked for a local NGO, leaving 14% that worked for a UN agency. In terms of respondent profiles, the broad majority worked as either Logistics Coordinator or Logistics Officer (58%), with 17% as Head of Mission, 15% as Programme Coordinator, and the remaining 10% as Operations Coordinator or Information Management Officer. 70% of responses were in English, with 30% in French.

Two versions of the survey were prepared and shared; 30% of the respondents replied in French, and 70% in English.

Interviews:

The Lessons Learned exercise was mostly based on interviews with key stakeholders based in Haiti or who had been working in Haiti during the emergency response. Government, UN, NGO/INGO partners, Logistics Cluster and WFP staff, as well as donors were interviewed. Sampling was expansive to cover a representative sample of the key stakeholders of the operation. A total of 20 interviews were conducted during the mission. For a full list of interviewees please see Annex 5. Despite the efforts, however, it was difficult from NGO partners and OCHA to interview those who were present especially as the first wave of the response.

Quality Assurance: To ensure the validity of findings, this report was reviewed and the key findings discussed with Theo Lingens from THW, the Global Logistics Cluster in Rome (Louis Boshoff, Stephen Cahill), and the WFP country office in Haiti. All information was triangulated using interviews and documentary evidence.

The Lessons Learned Exercise team was composed of the following members:
1. Rie Ishii, Head of ALITE, WFP Rome
2. James Belgrave, IM Officer/OPSCEN Deputy, WFP Rome
3. Davorka Garagic, UNHRD, Dubai

1.3 LIMITATIONS AND CONSTRAINTS

Timing: The mission to Haiti took place from 24 to 28 April and remote interviews were conducted until the beginning of June. A second survey was launched in May after the mission.

Members: There was no NGO partner member who was available to conduct the mission together.

Given the time constraints, the members were unable to visit the sites of Jérémie or Les Cayes. The timing of the mission was after the closure of the project, and many of the respondents, especially NGO partners, were unavailable in-country or already closed the operation.

ANNEX 2 – DOCUMENTS CONSULTED

- ACAPS, Haiti Lessons Learned for Hurricane Matthew Response, 10 October 2016
- ALNAP, evaluating humanitarian action using the OECD-DAC criteria, An ALNAP guide for humanitarian agencies (http://www.alnap.org/resource/5253.aspx)
- ALNAP, Haiti Earthquake Response Context Analysis, July 2010
- Joint Evaluation of the Global Logistics Cluster, prepared by the KonTerra Group, August 2012 – supported by WFP, UNICEF and the Government of Netherlands
- Logistics Cluster, Haiti Closure Report, May 2017
- Logistics Cluster, Global Strategy 2016-2018, January 2016
- Logistics Cluster, Lessons Learned Methodology, June 2014
- Logistics Cluster, all relevant documents from the website (http://www.logcluster.org/ops/hurrmat16) including Meeting Minutes, Operation of Overview, Standard Operating Procedures, Logistics Capacity Assessment, maps, etc.
- OCHA, Haiti Flash Appeal October 2016.
- OCHA, Reference and thematic Maps, Infographics, other documents (http://www.unocha.org/hurricane-matthew)
- OCHA, Haiti Situation Reports #1-#35 (October 2016 - March 2017).
- OECD, Guidance for Evaluating Humanitarian Assistance in Complex Emergencies, 1999.
- Real time evaluation: Response to Hurricane Matthew in Haiti (Nov-Dec 2016).
- WFP Logistics Cluster, Haiti Earthquake Operations Lessons Learned, January 2010
- WFP budgets, narratives, budget revisions, standard project reports and financial tracking for Special Operation 201033 “Logistics and Telecommunications Augmentation and Coordination in Response to Hurricane Matthew in Haiti”.
- WFP Haiti Country Briefs October 2016 – March 2017.
- WFP Haiti External Situation Reports #1-#41 (October 2016 – March 2017).

ANNEX 3 – INTERVIEW QUESTIONS

Introduction

- How long have you been in Haiti? Personally /your organisation?
- What are the log activities of your NGO? Bottlenecks?
- What have been the benefit of attending Logistics Working Group meeting?
- Have you worked with Logistics Working Group/ Logistics Cluster in other country?
- What worked well?
- Areas to be improved / change/ reinforce / enlarge/ etc

Overall

- Appropriateness: Do you think the Logistics Working Group's Strategy was appropriate (in line with local needs and priorities)?
- Effectiveness: Do you think the Logistics Working Group's activities were effective/timely? (Were logistics services provided timely enough for partners to implement their activities?)
- Efficiency: Do you think the Logistics Working Group activities were efficient/cost-effective?
- In your opinion, what were the Logistics Working Group's biggest strengths and weaknesses?
- What could be improved for the future?

Coordination

- How would you evaluate the Logistics Working Group's job in facilitating coordination?
- Is there anything that could be improved in terms of coordination?
- Have you regularly participated in the Logistics Working Group meetings and related discussions? If not, why?
- Were alternative approaches to achieving objectives considered? If so, how successful were they and would you recommend their application in the future?
- What were the most successful activities? And the least successful?

Information Management

- Is there anything the Logistics Working Group could improve in terms of providing logistic information?
- Did Partners receive relevant information?

Common Logistics Services

- Do you think the Logistics Working Group facilitated the right/appropriate logistics services?
- Were the services facilitated timely?
- Would you have any suggestions on how can Logistics Working Group improve their services request procedure?

ANNEX 4 – PEOPLE CONSULTED

Organisation	Name	Function	Location	Date
WFP	Sofiane Essayem	Regional Procurement Officer	Port-au-Prince	25 April 2017
WFP CO	Wendy Bigham	Deputy Country Director	Port-au-Prince	25 April 2017
WFP CO	Michael Klobucar	Logistics Officer	Port-au-Prince	25 April 2017
WFP CO	Elie Toulouse	Workshop/Fleet Manager	Port-au-Prince	25 April 2017
CRS	Marie-Antolaine Alcide	Head of Operations	Port-au-Prince	25 April 2017
WFP CO	Nuru Jumaine	Head of Supply Chain	Port-au-Prince	25 April 2017
WFP	Baptiste Burgaud	Logistics Cluster Coordinator	Telephone	26 April 2017
DPC	Gérald Joseph	Logistics Focal Point	Port-au-Prince	26 April 2017
DPC	Yolene Surena	Operations Coordinator	Port-au-Prince	26 April 2017
WFP	Andrew Stanhope	Regional Supply Chain	Telephone	27 April 2017
IOM	Bernard Lami	Program Manager	Port-au-Prince	27 April 2017
USAID	Rick Carbone	Surge Food for Peace Officer	Port-au-Prince	27 April 2017
USAID	Jonathan Anderson	OFDA Regional Advisor	Port-au-Prince	27 April 2017
SDC	Jean Francois Golay	Humanitarian Programme Coordinator	Port-au-Prince	28 April 2017
Diakonie-Katasrophenhilfe	Hypollite Starry Sprenkle	Operations Manager	Port-au-Prince	28 April 2017
Samaritan's Purse	Cara Tupps	Programme Development Officer	Port-au-Prince	28 April 2017
WFP	Veronica Rovegno	Logistics Cluster IM Officer	Rome	02 June 2017
WFP	Irene Pazzano	Logistics Cluster IM Officer	Rome	31 May 2017
WFP	Edmondo Perrone	Logistics Cluster Coordinator	Rome	02 June 2017
UNHRD	Athalie Mayo	Logistics Officer	Brindisi	3rd May 2017

ANNEX 5 – ACRONYMS

ACCRONYM	
ACAPS	The Assessment Capacities Project
ALNAP	Active Learning Network for Accountability and Performance
ConOps	Logistics Cluster Concept of Operations
COUN	National Operation Emergency Centre/Centre d'Opération d'Urgence National
CRS	Catholic Relief Services
DPC	Department of Civil Protection
IASC	Inter-Agency Standing Committee
IOM	International Organization for Migration
LET	Logistics Emergency Teams – emergency response partnership with Agility, Maersk Group and UPS to assist the Logistics Cluster with emergency response
MINUSTAH	United Nations Integrated Stabilisation Mission in Haiti
NGO	Non-Governmental Organisation
OECD	Organization for Economic Cooperation and Development
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
RITA	Relief Item Tracking Application
SO	Special Operation
SRF	Service Request Form
UN	United Nations
UNDAC	United Nations Disaster Assessment and Coordination
UNICEF	United Nations Children's Fund
WFP	United Nations World Food Programme