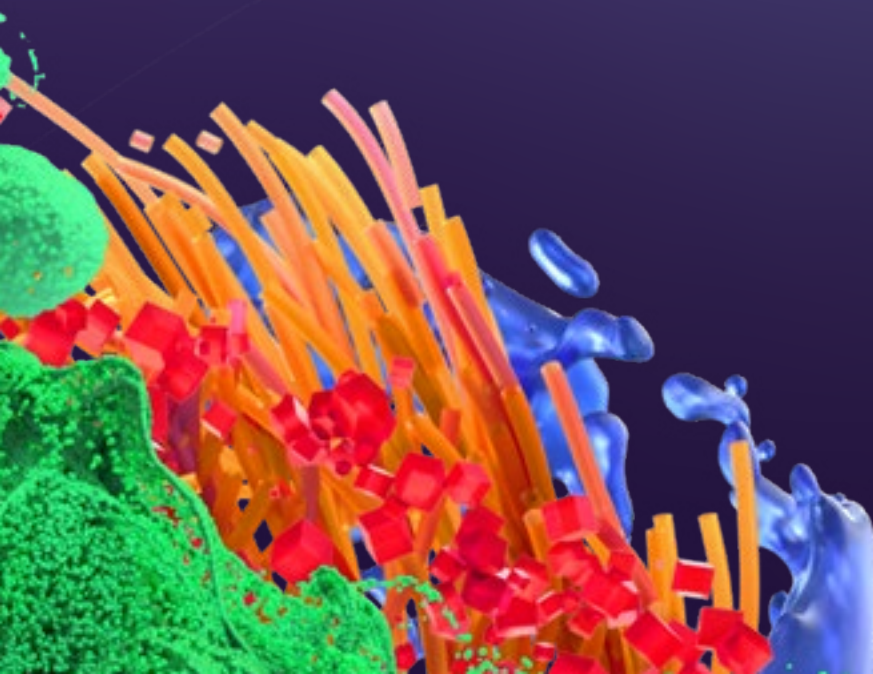




EMPOWERING HUMANITARIAN LOGISTICS RESILIENCE:

Collaborative Innovations for Crisis Response
in the Age of Climate Challenges



FOREWORD

Illuminating the path of humanitarian logistics

In a world marked by global interdependence and facing unprecedented challenges such as the effects of climate change, humanitarian logistics plays a significant role in responding to crises when conventional supply chains are disrupted by natural disasters or complex emergencies. It is a global network that activates to ensure the efficient delivery of vital aid, often determining the speed and effectiveness of relief efforts. Humanitarian logistics leverages the power of partnerships and collective action when business-as-usual supply chains are disrupted.

By centring the indispensable role of coordination mechanisms like the Logistics Cluster (LC), collaborative partnerships such as the Logistics Emergency Team (LET) and organisations like Imres (who are in the business of crisis support), this paper is dedicated to shaping a comprehensive vision for effective humanitarian logistics. It scrutinises the complexities and challenges associated with providing support to crisis-affected areas. It also puts forth ideas on how to improve global preparedness, reflecting our shared commitment to realising a future where logistics can prepare and protect the needs of communities worldwide.

In unity and determination,

Maha AlQattan, Chief Sustainability Officer, DP World

DEFINING HUMANITARIAN LOGISTICS

Humanitarian logistics is the central element of crisis response, orchestrating supply chain operations in dire and time-sensitive situations. With lives at stake, the seamless flow of essential goods becomes paramount. This encompasses planning, procurement, transportation, warehousing and distribution of resources to alleviate human suffering during disasters, conflicts and emergencies. Mary Jelliti, Deputy Global Logistics Cluster Coordinator at the Logistics Cluster, succinctly emphasises: “Humanitarian logistics is the foundation of crisis response, with rapid supply chain coordination as its cornerstone.”

At the recent General Assembly’s annual debate in September, which saw the largest gathering of world leaders since the pandemic, humanitarian logistics took centre stage. Assembly President Dennis Francis highlighted, “Humanitarian logistics plays a pivotal role in fostering cooperation and addressing global conflicts.” With over 88 heads of state, 42 heads of governments and thousands of delegates in attendance, the need for well-coordinated logistics action was more apparent than ever.

This massive turnout underscores the critical importance of humanitarian logistics in a world grappling with increasingly complex and frequent crises, ensuring timely aid delivery to those in need.

Humanitarian logistics entails a collaborative effort among diverse stakeholders to deliver aid efficiently, particularly during times of crisis. Addressing supply chain bottlenecks and associated inefficiencies is significant for crisis management. According to statistics based on research conducted by HELP Logistics and the Kuehne Logistics University, 73% of humanitarian expenditures are linked to supply chain activities, and the cost of climate-related humanitarian response alone is projected to reach \$20 billion annually by 2030 (Stumpf, Besiou and Wakolbinger, 2022). Coordination and expertise in logistics are key components in optimising resources and minimising the impact of disasters. In these high-stakes situations, cost reduction becomes imperative to extend the reach of relief efforts and assist more individuals.

Non-governmental organisations (NGOs) often face resource constraints during disasters, particularly in complex and protracted emergencies, underscoring the vital importance of well-coordinated actions which can make a life-saving difference. This intersection between need, resource availability and logistics capability has directly influenced the impact and effectiveness of relief efforts. When every logistical decision influences the outcome, time is of the essence and a fine-tuned coordination of efforts is required. As crises grow in complexity and frequency, humanitarian logistics assume even greater significance in ensuring timely aid delivery to those in need.

CLIMATE CHANGE IMPACTS AND ADAPTATIONS

According to a report by the WMO and UNDRR, published in 2021, more than 11,000 disasters mapped between 1970 and 2019 were related to either weather, climate, or water – accounting for 62% of total disasters. The impending challenges for the sector, given that the frequency and severity of climate induced disasters are only likely to worsen, is self-evident.

The relevance of climate change to humanitarian logistics is two-fold, impacting both relief delivery and global demand for the sector's intervention. These both operate as two poles of a negative feedback cycle – where the interplay between fluctuating climate patterns, more frequent and severe climate change related disasters and increased socio-economic vulnerabilities contribute to prolonging the length of crises. In turn, responding to these intensifying issues of community displacement, food scarcity, and infrastructure damage become difficult to environmentally safeguard given the need for prompt, time-sensitive responses and the industry's own coordination, procurement, and distribution constraints.

Given the propensity for climate change related consequences to only become more pronounced, there is a need to respond by employing robust climate modelling frameworks that allow the humanitarian logistics sector to actively pre-empt climate-induced disruptions and thus improve the sectors' ability to respond proactively. Predictive modelling will allow the collective humanitarian community to future proof warehousing infrastructure, hinterland connectivity and logistics solutions. Such modelling also facilitates climate-informed steps to curb carbon emissions and environmental impacts associated with relief delivery efforts and logistics operations at large.

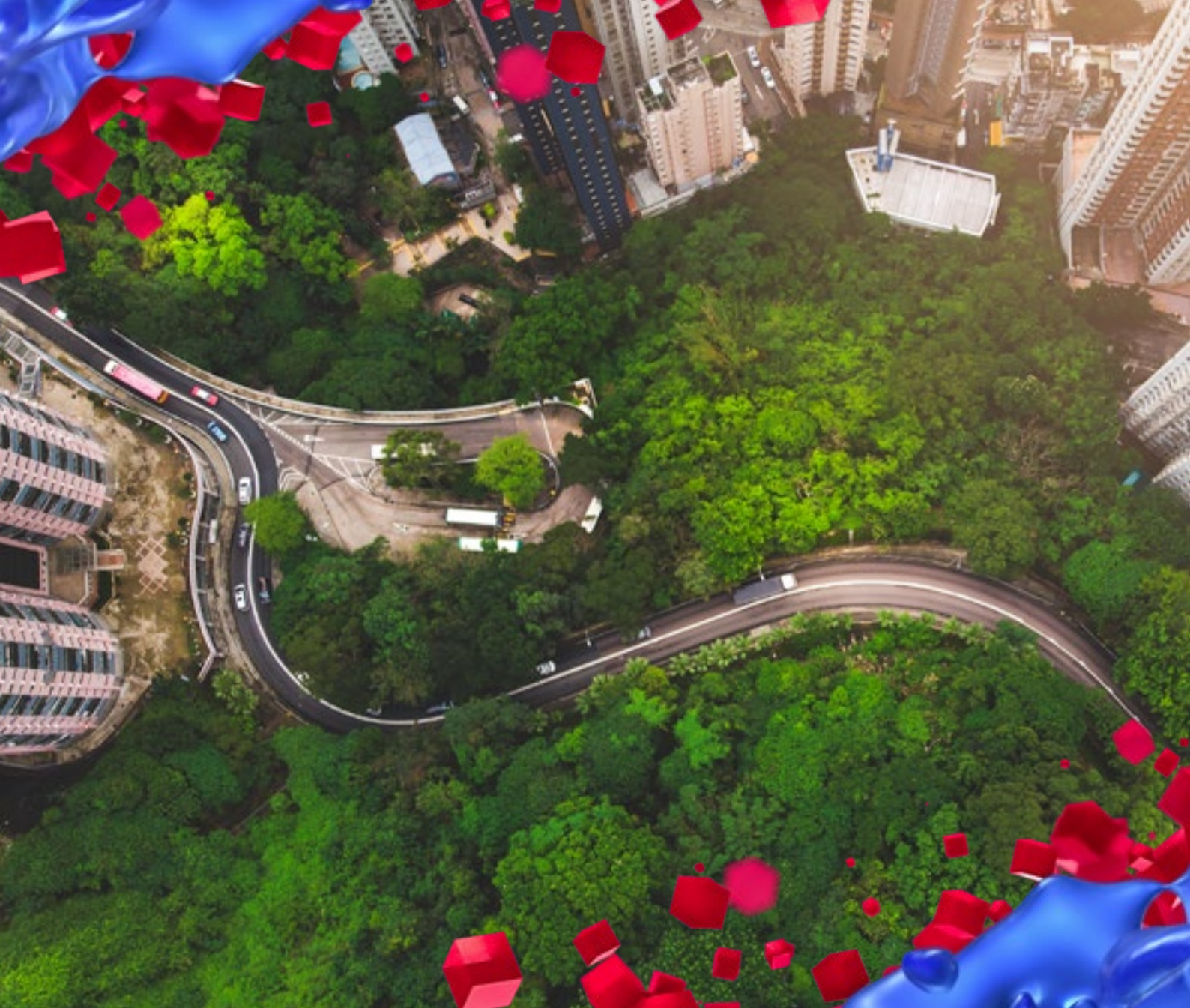
Insights gained from past humanitarian missions serve as the foundation for preparedness in anticipation of future crises. Bouran Suleiman, of IHC, highlights the importance of strategically repositioning hubs and fostering alliances for a co-ordinated response. She emphasises that the lessons learned from the COVID-19 pandemic underscore the need for continuous registration, meticulously maintained databases and specialised training to navigate these evolving challenges. The significance of local capacity-building also comes to the forefront,

recognising the pivotal roles of local governments, NGOs and suppliers as the first line of response. Another key takeaway is the importance of global stockpiles, distributed based on comprehensive risk assessments.

In addition to these measures, Logistics Capacity Assessments (LCAs) continue to play a crucial role in preparedness efforts. LCAs involve comprehensive assessments of logistics infrastructure and capacity in different regions, providing invaluable data for strategic planning. Leveraging readily available climate forecast data, as part of these assessments, will further strengthen logistics capabilities on the ground, enabling swift and climate-informed decision-making during crises.

However, key stakeholders rightfully highlight the need to delicately balance environmental consciousness, and the overarching objective of providing sustained, reliable aid to the maximum number of people during crises. To meet this pressing need to better embed scalable, environmentally sensitive delivery solutions, while still empowering humanitarian practitioners to save lives, the sector has looked to pursue a systematic, targeted approach to more climate-friendly humanitarian efforts.





There are three definitive areas to be managed from logistics' activities: decarbonisation of equipment and transport, green procurement, and mitigation of the waste generated by operations. The LC coordinates the “**W**aste management and measuring, **R**everse logistics, **E**nvironmentally sustainable procurement and transport, and **C**ircular economy” (WREC) project, alongside a coalition of humanitarian organisations, to offer awareness building, practical guidance, and real time environmental expertise to help the sector expand its “do-no-harm” mandate (Logistics Cluster, 2022) to the natural environment. In September 2022, the WREC project leveraged a comprehensive qualitative analysis, conducted by the Hanken School of Economics' HUMLOG institute, to identify future pathways in the humanitarian context and explore correlations between unintended environmental impacts and humanitarian logistics operations (Logistics Cluster, 2022).

Muhammad Yaqoob, Senior Global Supply Officer at UNHCR, underscores the pivotal role of fostering local capacity, extending not only to UN agencies but also local governments, NGOs and suppliers. Additionally, Erwin Van Boven, Team Leader Sales at Imres, acknowledges the complexity posed by packaging choices, noting that “the challenge lies in striking a balance between maintaining medical supply quality and pursuing eco-friendliness.” He emphasizes a commitment to finding innovative, longer-term solutions for sustainable packaging that can harmonize both objectives.



NAVIGATING THE LANDSCAPE: CHALLENGES AND PLAYERS

A complex network of humanitarian logistics players

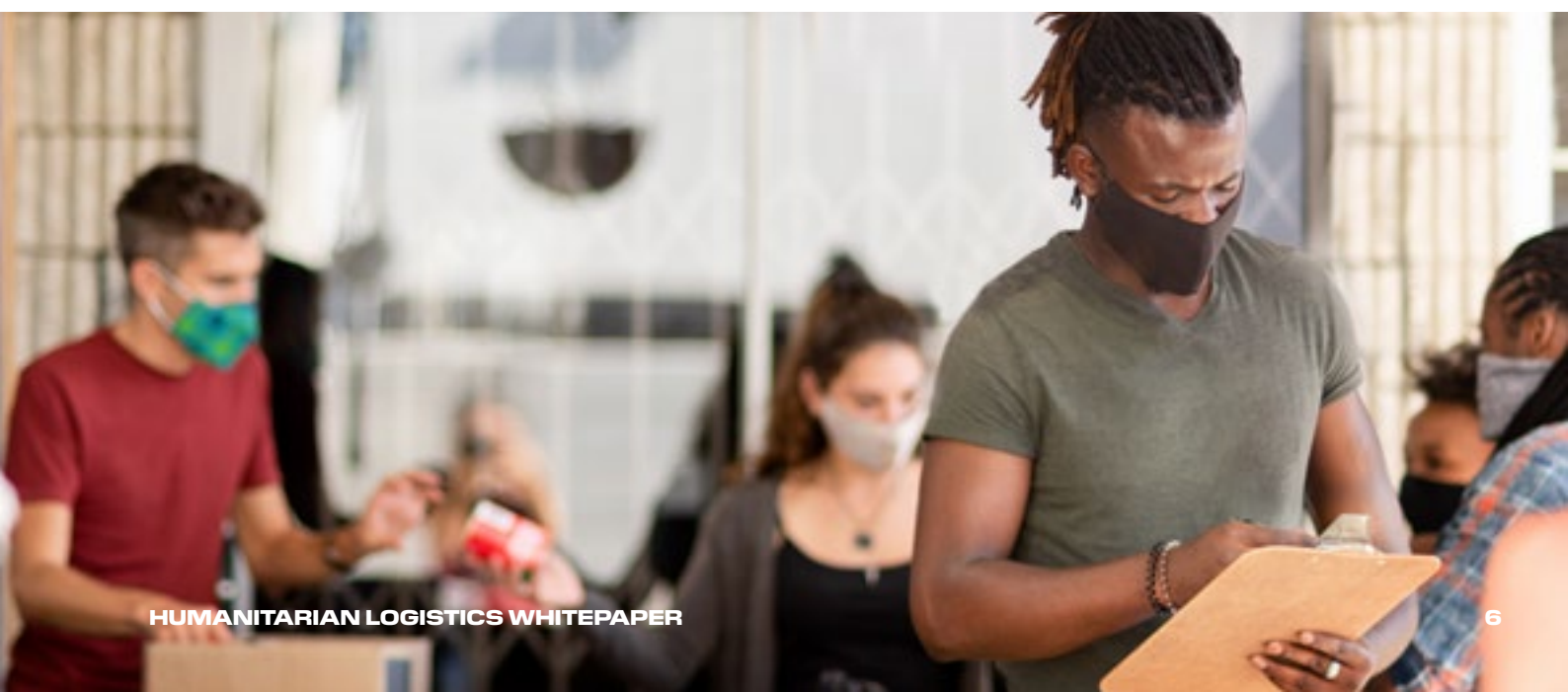
Humanitarian logistics thrives within a complex yet interconnected ecosystem of actors, where both public and private sectors converge to provide a tapestry of support. At its core is the Logistics Cluster (LC), a coordination mechanism operating under the mandate of the United Nations World Food Programme (WFP).

The LC is not an independent organisation, but rather a mandated role of the World Food Programme (WFP). This distinction is crucial to better understand what the Logistics Cluster is and how it operates. The LC is part of the Cluster system established by the Inter-Agency Standing Committee (IASC). Due to its expertise in humanitarian logistics, the IASC has designated the WFP as the Logistics Cluster global lead agency. The LC is responsible for providing co-ordination, information management and facilitating access to logistics services that address common gaps to ensuring an effective and efficient logistics response of humanitarian emergency missions.

In an emergency or crisis response, host governments and/or Humanitarian Country Teams (HCTs) may

request support to ensure humanitarian organisations work together to identify and address common logistics needs or gaps. To respond to such requests, there are several coordination tools and mechanisms available to facilitate logistics support activities during an emergency response and a ‘Gaps and Needs Analysis Exercise’ can help determine the best mechanisms and support needed.

The primary objective of humanitarian action – and the purpose of co-ordination – is to meet the needs of affected people by means that are reliable, effective, inclusive and respect humanitarian principles. The Logistics Cluster is part of the IASC cluster system that was created to ensure proper co-ordination and information management to deliver more efficient and predictable responses. The specifics of how the LC is invited or activated during emergencies depend on the protocols of the individual country and the nature of the emergency. Agencies are commonly invited in to international humanitarian response. This ensures respect for national sovereignty and coordination with local efforts. The Logistics Cluster Support Team can support the activation process with staffing, information products, co-ordination meetings and setup of operations.



In the realm of humanitarian logistics, a complex network involving government agencies, NGOs and philanthropic groups play vital roles in facilitating effective relief efforts. These organisations bring diverse implementation capabilities and immediate action to crisis situations. Alongside them, the private sector emerges as a powerful ally, harnessing its extensive geographic reach, operational scale, innovative solutions and industry expertise to enhance and augment humanitarian relief initiatives.

At the forefront of this collaborative landscape stands the Logistics Emergency Team (LET), an alliance currently comprised of four of the world's largest global logistics and transportation companies – Agility, DP World, Maersk and UPS. This strategic partnership serves as an illustration of the synergy between the private and public sectors in the humanitarian sphere. Together, the LET partners undertake a distinctive role that, while different from traditional NGOs, can be likened to a dedicated support group operating in a quasi-NGO capacity. They run strategically co-ordinated pro bono programs that are specifically designed to enhance the LC's capabilities and increase its effectiveness during crises.

Furthermore, a distinct group of companies supplement the private sectors involvement in relief efforts, operating with a mission to induce positive humanitarian impact as part of their core business practices. Imres, a DP World subsidiary, epitomises this model. Imres boasts decades of experience in navigating humanitarian logistics complexities, focusing on improving access to vital medical equipment, medicines, and consumables. They diligently separate their commercial activities from their commitment to quality healthcare delivery in alignment with humanitarian goals. Similarly, companies like Zipline and KickStart International excel in this niche, emphasising a clear balance between commercial objectives and a dedication to accessibility and social enfranchisement. These companies play a vital role in the mission of saving lives and alleviating suffering during crises, recognising their responsibility to local communities and contributing to relief efforts during emergencies.

According to Muhammad Yaqoob, Senior Global Supply Officer at UNHCR, the "collaboration among diverse stakeholders is essential in mitigating complex humanitarian challenges". This collaboration forms a robust patchwork quilt that unites a diverse array of entities, ranging from local communities to international organisations and forging a collective commitment to effective humanitarian response. While intricate, the web of actors demonstrates the interdependence necessary for successful humanitarian logistics and underscores the urgency for unified action in the face of evolving crises.

OVERVIEW OF THE PLAYERS

Disaster and emergency responders (including, but not limited to)



UN Specialized Agencies



NGOs (including, but not limited to)



Tackling challenges: cost, organisation, bureaucracy and the last mile

Crises response is a complex problem, and this complexity brings with it challenges that necessitate innovation and unwavering commitment. The conventional approach often concentrates on one-time disaster responses, such as natural disasters, where ‘one-off’ or ‘in-kind’ support is more practicable. Yet, the evolving nature of humanitarian response calls for a shift towards more meticulously coordinated relief efforts. These efforts should harness cost-sharing structures and efficient supply chain management to provide sustained aid for enduring, protracted humanitarian crises, including prolonged events like famine and slow-onset climate change phenomena such as droughts and floods. As the sprint to deliver aid begins, four formidable hurdles come into focus: cost distribution, security threats, climate-induced disruptions and last-mile delivery.

Humanitarian logistics walks a tight-rope; simultaneously looking to find ways in which to expedite action and maintain response integrity and due process. Procedural, regulatory and legislative processes are critical to preventing fraud and corruption, but also compound cost and flexibility related constraints. As Mary Jelliti, Deputy Global Logistics Cluster Coordinator at Logistics Cluster, aptly points out, “some bureaucratic hurdles are inherent and may not be eliminated in the near term as they serve vital functions”, but relief efforts do have room for continued optimisation and procedural efficiency building. Given the complexities that form a part of heavily safeguarded relief processes, the scope of the financial burden is substantial, with supply chain expenses forming a significant portion of emergency relief costs. To address these complexities “cost-sharing models are essential for private sector involvement, paving the way for equitable support during crises,” according to Frank Clary, Vice-President, Sustainability at Agility.

The last mile – bridging storage facilities to desperate recipients – demands precise planning and resource allocation. These challenges include varying financial costs and security risks, especially in rural and hard-to-reach areas. The greatest challenge lies in the physical logistics, overcoming damaged networks, dispersed populations and remote locations; making it difficult to coordinate relief efforts efficiently. With the commercial and contracted work undertaken by entities like DP World and other LET partners, industry knowledge and experience around efficient transshipment routes, in-land logistics efforts and last mile delivery solutions are readily available. However, costs and resource constraints with committed capacity to core business areas, can create additional hurdles, especially when looking to find ways to re-allocate support to crises with limited prior warning. This necessary adjustment emphasises the complexities involved in aligning private sector capacities with humanitarian efforts and ensuring these actors mobilise action in a capacity that is strategically additive. As Margi Van Gogh, of the World Economic Forum, points out, the private sector’s growing engagement in relief efforts can present difficulties in coordination. This underscores a significant issue where, despite well-intentioned contributions, a lack of effective coordination or direction may result in donations remaining unutilised or becoming inefficient. Vyakarnam continues, “as much as 80% of aid can waste in warehouses or in transit to communities in need, when collaboration is impeded.”

UNLOCKING SUSTAINABLE PROGRESS: AMINA MOHAMMED ON EFFICIENT RESOURCE ALLOCATION

Deputy Secretary-General Amina Mohammed, a prominent figure at the General Assembly’s annual debate in September, underscored the critical importance of efficient resource allocation. Her message resonates with the global community’s collective determination to advance the ambitious development agenda, particularly as they reach the midpoint in their pursuit of the Sustainable Development Goals (SDGs).

Mohammed shed light on the pressing issue of resource availability, highlighting the mounting debt burdens faced by many nations, hindering their ability to adequately fund essential services in education and health. “We are short of the resources but that’s why we’re pushing for the SDG stimulus. That is low hanging fruit. That is something we can do with existing resources and institutions. And I hope by the end of this year, we’ll have something to say about that” (UN News, 2023).

PRIVATE SECTOR PARTICIPATION

Leveraging the private sector

The logistics sector comprises a network of cross-boundary supply chains that is presented with a unique set of challenges. These are manifested in institutional bureaucracies, information asymmetry, fragmented communication channels and operational challenges which contribute to customs clearance issues as well as cargo handling and storage problems. Unlike the humanitarian sector, which has had to artfully navigate humanitarian response efforts within these systemic challenges, given the need for high volume, time-sensitive relief delivery; the private sector has benefitted from traversing the same obstacles from a solely commercial perspective. This has offered private sector entities a comparative breadth and freedom to operate, enabling innovation and the development of smart solutions to mobilise trade faster, manage potential risks and minimise their impacts on the flow of cargo. With corporate agendas finally shifting and business priorities expanding to encapsulate both environmental and social considerations; there is an opportunity to couple the humanitarian sector's repository of knowledge and on-the-ground expertise with the private sector's efficiency in delivery solutions. In doing so, a powerful partnership emerges - one that can enhance crisis responses.

This collaboration allows both humanitarian and private entities to leverage their strengths, making humanitarian logistics more efficient. By using their unique skill sets, these organisations can work together to address crisis challenges, providing fast and effective aid when needed.

One promising avenue for improvement is the establishment of one-stop-shop resources. These platforms, enriched by private sector expertise, serve as centralised hubs for sharing knowledge and information. They offer a wide array of tools, guidance and training aimed at optimising humanitarian logistics. Moreover, apart from improving qualitative aspects of cargo management and customs clearance, one-stop-shop resources can also allow for a multitude of physical logistics-related services to be managed by fewer total supply chain agents, minimising potential bureaucracies. This will include solutions like warehousing, co-packing, trucking and logistics.

Single-window clearance (SWC) facilities are another working example, streamlining customs procedures for faster humanitarian cargo movement across borders within countries and wider regions receiving aid. Private sector expertise helps to enhance data exchange, verification and storage, ultimately improving the quality and efficiency of humanitarian logistics operations. By leveraging these available facilities, relief cargo can be delivered faster, circumventing domestic bottlenecks.

THE POWER OF PRIVATE-SECTOR PARTNERSHIP: UNICEF AND DP WORLD

Almost one year into the COVID-19 Pandemic, DP World began its partnership with UNICEF in January 2021 by providing logistics solutions and supply chain expertise with the initial aim of supporting UNICEF's role in procuring and supplying 2 billion COVID-19 vaccines and related medical supplies around the world. DP World's warehouse facilities in Dubai – a strategic hub – provided UNICEF with optimised access to many countries, and its global network was further utilised through DP World's transport, port, and storage capabilities in countries where the company was present. The partnership was efficiently mobilised to respond to surges, such as in India, where an additional 2 million face shields and 200,000 surgical masks were dispatched from Dubai to New Delhi.

DP World's partnership with UNICEF has grown in subsequent years, with the company collaborating on other global programmes in support of education, health, women's empowerment and water and sanitation initiatives worldwide.

DP World continues to lend its support to UNICEF's Supply Division, including warehouses in Dubai and Copenhagen, which have recently provided critical support to children affected by the earthquakes in Syria and Türkiye, the ongoing war in Ukraine, and other humanitarian crises around the world.

In addition, digital tools offering a suite of enterprise services and traceability technology, like DP World's CARGOES project, offer innovative approaches to enhancing the visibility of humanitarian goods. CARGOES employs technologies such as blockchain and radio frequency identification (RFID) and can create a secure and transparent ledger of transactions, tracking the movement and status of relief items throughout the supply chain. By enhancing traceability and accountability, initiatives like CARGOES contribute to the overall efficiency and reliability of humanitarian logistics.

Moreover, the World Economic Forum (WEF) Global Supplier Resilience Initiative, developed in partnership with UNICEF and various other organisations, further demonstrates the private sector's potential to bolster the visibility and performance of the global supply

system, benefiting vulnerable communities. This initiative's upcoming Global Supply System Dashboard employs real-time data to enhance the resilience of essential goods supply. The initiative itself includes leading-edge start-ups and scale-ups working in technological and business model innovation.

As emphasised by Bouran Suleiman, of International Humanitarian City (IHC), successful humanitarian logistics hinge on more than just optimising existing infrastructure. The private sector's involvement necessitates leveraging its network of supportive customs systems, government partnerships and intelligent navigation of regulation. The collaborative relationship between entities like the partners of the LET and the humanitarian sector exemplifies the impact of such partnerships on improving efficiency within operations, global reach, and rapid response capabilities.

CASE STUDY

DELIVERING LIFESAVING AID DURING THE CRISIS IN UKRAINE

In response to the dire humanitarian crisis triggered by the war in Ukraine, several logistics companies affiliated with the LET independently mobilised their resources to provide critical aid (World Economic Forum, 2023). This multi-stakeholder effort demonstrated the private sector's notable role in delivering essential supplies to vulnerable communities.

With bases in Poland, Romania and Hungary, these logistics companies facilitated warehouse space and transportation routes, ensuring the seamless distribution of vital relief. DP World's strategic intervention included creating a rail link from Ukraine to Romania's DP World Constanta port, easing pressure on truck drivers and enabling smoother movement. This initiative led to the successful transportation of over 2,500 containers, significantly reducing road congestion and expediting the delivery of vital supplies.

UPS, through financial contributions, offered essential support, including funding an ambulance for a hospital treating refugees. Additionally, UPS's Customs Help Desk provided valuable assistance in navigating complex customs procedures and documentation, ensuring the swift clearance and movement of humanitarian cargo across borders. UPS's logistical aid encompassed services such as distribution and transport, demonstrating the private sector's capacity to address multifaceted challenges.

This collaboration highlighted the private sector's commitment to making a tangible impact during crises. By leveraging their expertise and resources, these companies demonstrated the strength of collective action, emphasising the importance of multi-stakeholder cooperation in addressing global crises. In a time of urgent need, the private sector's rapid response and effective operational solutions supported the delivery of crucial aid to millions affected by the crisis.

Uniting for impact: The Logistics Emergency Team (LET)

The LET stands as a powerful working example of what can be achieved through cross-sectoral collaboration in humanitarian logistics. The LET was established in 2006 with UPS, Agility and TNT as the founding partners, conscious of the critical role of logistics in crisis management. Over time, the partnership has evolved and expanded, with TNT stepping away, but both Maersk and DP World joining and maintaining the collective capabilities and resilience of the group.

The World Economic Forum played a pivotal role in the formation of LET and continues to actively support it, while The World Food Programme (WFP), as the appointed Lead Agency for the Logistics Cluster, spearheads this collaboration and manages the private sector's capacity to contribute to targeted action. The LET is committed to assisting across humanitarian organisations during emergencies by providing essential logistics services, pro bono. These services include transportation, warehousing, customs clearance, and information management.

An excellent example of successful public-private participation, the LET embodies the power of unified efforts in enhancing the resilience of humanitarian logistics. Margi Van Gogh, of the World Economic Forum, fittingly describes the LET as a “lighthouse for information and coordination,” while Bouran Suleiman, Head of Logistics & Humanitarian Initiatives at International Humanitarian City (IHC), highlights its role in bridging gaps and turning challenges into opportunities.

Transparency, good faith, and ongoing dialogue have laid the foundation for the LET's partnership. This has fostered a mutually beneficial relationship amongst partners and amplified their ability to assist during times of crises. Partners seize the opportunity to mobilise their employees and pool resources, while the Logistics Cluster coordinates the deployment of this additional capacity across a network of civil society,

NGOs and other on-ground partners; optimising their collective impact on relief efforts. This collaboration has facilitated open dialogue, nurturing a cooperative spirit and a willingness to learn from one another; ultimately, contributing to enduring success. Importantly, the LET complements bilateral humanitarian partnerships, with each member organisation continuing its pro bono programs to support relief efforts of specific organisations. This collective commitment and coordinated approach signify a promising path toward enhanced humanitarian logistics, driven by a shared vision for resilient crisis response.

INNOVATION IN ACTION

Blockchain for supply chain transparency:

Blockchain technology is enhancing transparency and accountability in humanitarian logistics. By providing an immutable and auditable record of transactions, blockchain minimises the risk of fraud and corruption in the supply chain. The United Nations World Food Programme (WFP) has successfully utilised blockchain to distribute cash-based assistance in Jordan, effectively reaching vulnerable populations while ensuring data security and accuracy (UN World Food Programme, 2018).

Drones for last-mile delivery: Unmanned aerial vehicles, or drones, are revolutionising last-mile delivery in remote and inaccessible areas. Organisations like Zipline have pioneered drone delivery systems that transport medical supplies, vaccines and blood products to hard-to-reach regions in Africa (Jahic, 2022). Drones offer rapid and cost-effective solutions, circumventing traditional infrastructure limitations and reducing delivery times from hours to minutes.

Predictive analytics for disaster preparedness:

Predictive analytics leverage historical data and machine learning algorithms to forecast potential crises and their impact. The Red Cross Red Crescent Climate Centre's Forecast-based Financing Initiative employs predictive analytics to anticipate extreme weather events and allocate funds in advance (Climate Centre, n.d.). This proactive approach enables timely response measures, reducing the humanitarian and economic toll of disasters.



CASE STUDY

FORGING HOPE AMIDST ADVERSITY IN HAITI

In the aftermath of the devastating 2010 earthquake in Haiti, a powerful example of corporate commitment emerged, reshaping the landscape of humanitarian logistics. UPS, Agility and TNT¹ came together in a remarkable display of the potential of public-private partnerships (Logistics Emergency Teams, 2017).

Amid the chaos, UPS dispatched two responders to oversee relief cargo distribution from its Air Logistics Warehouse in Santo Domingo, reinforced by Agility's personnel supporting International Medical Corps and the Logistics Cluster. TNT, strategically positioned as Fleet Coordinator and Air Cargo Coordinator, fortified the logistics backbone.

The fervent response led to an extended commitment, as a second group of TNT employees replaced the initial team, orchestrating the delivery of over 100 metric tonnes of high-energy biscuits through a sponsored Boeing 747 airlift. TNT's Air Operations Specialist untangled airport congestion, ensuring the smooth flow of humanitarian cargo at Port-au-Prince International Airport.

The collaboration's resonance reverberated beyond crisis response. In the face of the 2010 cholera outbreak, the LET surged once again. TNT's Airport Operations expert bolstered the Logistics Cluster, expediting the clearance and forwarding of crucial medical supplies.

Over time, this partnership matured into a driving force for positive change. By 2017, the LET had evolved into an entity that nurtured resilience from within. In close collaboration with the Logistics Cluster, the LET supported the establishment of a preparedness platform, strengthening mapping, coordination and infrastructure in Haiti.

The success story of Haiti is not merely a narrative of relief efforts – it serves as a testament to the power of collaboration. It represents the fusion of private sector experience and humanitarian urgency, shaping a future in which cooperative logistics actively contributes to recovery and resilience.

Data Intelligence: Tools for optimising resilient humanitarian logistics

As the humanitarian logistics community looks to consolidate available innovative solutions within its existing systems, the landscape is evolving to integrate these promising approaches. The Logistics Emergency Teams (LET) have played a key role in conceptualising and supporting these consolidated preparedness and response activities. In particular, a tool called EDUARDO, providing flight routing data to and from key humanitarian response locations, was developed by the LET, in collaboration with Google, and showcases the potential for innovation in data management through private sector partnership.

In addition to EDUARDO, the Logistics Cluster has introduced the Logistics Cluster Information Exchange platform (LogIE) to further empower humanitarian logistics and enhance the use of data-driven insights across the sector more broadly (Logistics Cluster, n.d.). It serves as a vital element in the reshaping of humanitarian logistics, bridging information gaps and enhancing coordination among stakeholders. LogIE provides a centralised hub for critical information exchange, supplementing Logistics Capacity Assessments (LCA) to guide actions taken on-the-ground. Its data-driven approach promises to streamline efforts and ensure more effective aid delivery, especially during crises.

Mary Jelliti, Deputy Global Logistics Cluster Coordinator at Logistics Cluster, underscores the significance of LogIE, stating:

“LogIE revolutionises humanitarian logistics, empowering efficient responses through data-driven insights”.



HOW LOGIE WORKS

Speed is a significant benefit of this platform and helps it stand out from previous systems. Information is shared ‘on the spot’ using digital tools, allowing near real-time data updates. For the sector, this drastically increases understanding of physical constraints on-the-ground and allows more strategic decision making to support aid delivery.

- **Data sharing:** User-friendly interface for sharing logistics info
- **Multi-layer map:** Visualise data with geographical context
- **Customisation:** Tailor maps for unique insights
- **Integration:** Central hub for system integration
- **Validation:** Rigorous data verification processes
- **Data aggregation:** Combines user and local sources
- **Accessibility:** Easy access via websites and APIs

Current deployment

Countries: Colombia, Haiti, Honduras, Iraq, Madagascar, Malawi, Sierra Leone, Ukraine, Zimbabwe, Somalia and more.



CASE STUDY

EMPOWERING DISASTER RELIEF IN PERU

In March 2017, the catastrophic flooding in Peru left devastation in its wake, displacing tens of thousands and claiming numerous lives. DP World, a partner in the Logistics Emergency Teams (LET) and driven by our commitment to humanitarian logistics, played a significant role in responding to this crisis (Clary, 2023). With a strategic network of partners, including private sector partners within the LET, DP World orchestrated a collaborative effort to provide critical aid.

Over 400 metric tonnes of life-saving supplies were collected from donation consolidation sites and transported to the port, overcoming impassable roads and logistical hurdles. The coordination and resources pooled from LET partners, including DP World, ensured the swift movement of essential goods from Lima to the hardest-hit areas along the northwest coast. Recognising the need for immediate action, DP World facilitated container stuffing operations, leveraging our expertise to maximise cargo capacity and efficiency.

Furthermore, DP World's strong relationships with local and regional ocean carriers played a pivotal role in the mission's success. Through these alliances, the donated aid was promptly loaded onto ships and delivered to the destination ports on the northwest coast, despite the challenging conditions. The Peru flooding response underscores what is possible when a lead actor collaboratively works with partners, harnessing its global reach, expertise and collaborative spirit for the greater good.

CONCLUSION: CHARTING A PATH FORWARD

A fortified humanitarian logistics sector requires humanitarian, public and private sector actors to work together to address both the perceived and real challenges around crises response. Over the course of this whitepaper, we have been fortunate to garner the valuable insights of key stakeholders, industry peers and experts across the full spectrum of the humanitarian logistics sector.

These recommendations must be interpreted as a call-to-action, helping to inform our collective understanding of what constitutes a future where preparedness and effective response have come together to effectively address the humanitarian challenges of our world. By turning these recommendations into actions, we can move closer to a vision of a more resilient, inclusive, and compassionate approach to humanitarian efforts.

HIGHLIGHTS

Climate-resilient strategies

- **Integrating climate risk assessment:** Embed climate risk assessment into logistics planning and decision-making. Use predictive analytics to anticipate climate-induced disruptions, enabling adaptive operations.
- **Promoting renewable energy adoption:** Embrace sustainable energy sources like solar and wind to power logistics operations. Invest in solutions that reduce the carbon footprint of humanitarian activities.

Capacity building and community engagement

- **Empowering local communities:** Implement community-based disaster preparedness programs, akin to the Cyclone Preparedness Programme, in vulnerable regions. Equip community members with the skills and knowledge to respond effectively to climate-related disasters.

Providing training and education

- **Offering comprehensive training:** Provide logistics professionals with training and capacity-building programs, focusing on equipping them with skills in climate resilience, innovation and advanced technology.

International agreements and collective action

- **Streamlining bureaucracy:** Foster international agreements and collaborative initiatives that simplify bureaucratic processes. Enhance the efficiency and coordination of the Global Logistics Cluster in orchestrating humanitarian logistic responses.
- **Strengthening bilateral agreements:** Promote bilateral agreements to expedite customs clearance, access transport infrastructure and foster resource sharing, thereby enhancing international cooperation in humanitarian logistics.

Collaborative innovation for enhanced coordination

- **Strengthening public-private partnerships:** Establish a robust framework for collaboration between public and private entities. Leverage the private sector's expertise and resources to enhance the efficiency and adaptability of humanitarian logistics.
- **Enhancing data sharing:** Foster a culture of transparency and data sharing among stakeholders. Develop platforms and protocols for real-time information exchange, empowering informed decision-making and resource allocation.

Technological advancements for resilience

- **Investing in digital infrastructure:** Allocate resources to build the digital foundations that underpin data-driven logistics operations. Implement cutting-edge technologies like blockchain, IoT and AI to enhance supply chain transparency, traceability and efficiency.
- **Harnessing innovation's power:** Tackle the challenges of last-mile delivery in remote regions through innovation. Collaborate with manufacturers and operators to pioneer new delivery technologies and networks, facilitating swift transportation of critical supplies during emergencies.

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Team Leader Sales, Imres

[Interview date: Thursday, 17 Aug 2023]

Their insights, perspectives and candid discussions have played a pivotal role in shaping the narrative of this whitepaper. Their dedication to improving humanitarian logistics and driving positive change is both inspiring and commendable. We are grateful for their time, commitment and willingness to share their experiences, ultimately contributing to a more comprehensive understanding of the challenges and solutions within this dynamic field.

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