



Study on international humanitarian transport, logistics and stockpiling capacities.

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Table of Contents

EXECUTIVE SUMMARY	3
1.0 OVERVIEW	3
2.0 OBJECTIVES	8
3.0 CONCLUSIONS.....	8
MAIN REPORT	9
INTRODUCTION	9
1.0 INTRA-ORGANISATIONAL LOGISTICS	14
2.0 PREPAREDNESS AND PLANNING	16
2.1 PLANNING	16
2.2 EDUCATION, TRAINING, EXERCISES AND EVENTS	18
2.3 STANDARDISATION	18
3.0 PROCUREMENT	20
4.0 HUMANITARIAN TRANSPORT.....	22
5.0 STORAGE AND WAREHOUSING	28
6.0 TRACKING AND CUSTOMS CLEARANCE.....	31
6.1 TRACKING AND TRACKING SYSTEMS	32
6.2 CUSTOMS CLEARANCE	33
7.0 DISTRIBUTION AND MONITORING	34
8.0 EXTERNAL LOGISTICS CO-ORDINATION AND INFORMATION MANAGEMENT	35
8.1 INTERNATIONAL CO-ORDINATION.....	35
8.2 INFORMATION MANAGEMENT	37
ANNEXES.....	38
1.0 TECHNICAL SPECIFICATIONS.....	38
2.0 METHODOLOGY	42
3.0 STUDY TEAM	43
4.0 DESKTOP STUDY	44
4.1 STUDY DOCUMENT LIST	46
4.2 INTERNET RESOURCES	46
4.3 PARALLEL STUDY: TERMS OF REFERENCE	47
5.0 EU MEMBER STATES' ARRANGEMENTS (AND NORWAY, WHO ALSO PARTICIPATED IN THIS STUDY):.....	49
6.0 STUDY QUESTIONS.....	50
6.1 INTRA-ORGANISATIONAL LOGISTICS	50
6.2 PREPAREDNESS AND PLANNING	51
6.3 PROCUREMENT	51
6.4 HUMANITARIAN TRANSPORT (SEA, LAND, AIR)	51
6.5 STORAGE AND WAREHOUSING	52
6.6 TRACKING AND CUSTOMS CLEARANCE.....	52
6.7 DISTRIBUTION	52
6.8 EXTERNAL LOGISTICS CO-ORDINATION AND INFORMATION MANAGEMENT	53
7.0 INTERVIEW LIST.....	54

EXECUTIVE SUMMARY

1.0 Overview

The humanitarian supply chain is a complicated, dynamic, and powerful mechanism. Involving up to 80% of humanitarian organisations' operational budgets¹, logistics are often the most complex element of an emergency relief operation. The success or failure of many humanitarian operations relies on understanding and addressing the issues and problems of the supply chain. Measuring the performance, cost-effectiveness, efficiency and/or appropriateness of the humanitarian supply chain is made difficult by its unique definition, the ever-changing environment in which it operates, the number of players affecting the various functional areas, and the lack of a common set of humanitarian-specific key performance indicators for logistics. This importance is highlighted in the fact that other studies targeting different aspects of disaster relief are currently being performed. In the framework of the European Community's Civil Protection Mechanism, the European Commission's (EC) Directorate General (DG) Environment Civil Protection Unit (CPU) is investigating the potential gaps between current European disaster response capacities and the response capacity required by potential future disaster scenarios (Annex 4.3) with a focus on European civil protection resources.

The private sector has long acknowledged their logistics departments as a main functional part of their entire operation. The humanitarian community has only recently begun to recognise and allocate logistics and supply chain management functions the importance they warrant. The International Federation of Red Cross and Red Crescent Societies (IFRC) and the UN World Food Programme (WFP) are leading this trend as the demand for professional logisticians among humanitarian organisations increases. Co-ordination mechanisms such as the UN Cluster system have been established to 'provide strategy and policy guidance, surge capacity for response to new cluster activations and operational support'². Common logistical services such as the UN Humanitarian Air Service (UNHAS) or organisations that have been recognised by the European Commission Humanitarian Aid department (DG ECHO) as Humanitarian Procurement Centres (HPCs) provide supply chain functions to the humanitarian community in an effort to streamline and increase the cost-effectiveness and efficiency of relief activities.

Many players participate in one or more of the various parts of the chain, each with its own perspective and capacities. This report will focus on two main players: Humanitarian Assistance (HA) organisations and Member States (MS) of the European Union (EU), in their roles both as direct, bi-lateral assistance providers and as donors to IOs. HA organisations include the United Nations, Non-Governmental, and International (Inter-governmental) Organisations whose mandate and function are primarily focused on disaster relief and humanitarian aid.

It should be noted that the interview list of this study was not exhaustive, e.g. only 7 EU MS were interviewed; only a representative sample of interviews were conducted with the different categories of main players. The purpose of this report was not to analysis the

¹ "Disaster relief is 80 per cent logistics." Lynn Fritz of the Fritz Institute, a non-profit organisation that works in partnership with governments, non-profit organisations and corporations around the world to innovate solutions and facilitate the adoption of best practices for rapid and effective disaster response and recovery.

² IFRC/WFP both estimate 70-80% of emergency budgets are spent on logistics – not including staffing costs.
<http://www.humanitarianreform.org/humanitarianreform/Default.aspx?tabid=81>

specific capacities of individual players but rather examine the capacities of the community as a whole. Additionally, there are major players who have a potentially significant role in the humanitarian supply chain but are not prominently featured in the report. This is mainly due to the fact that they participate on an *ad hoc* basis or have an organisational mandate that does not meet the study's criteria of providing life-saving relief in the first 180 days across three simultaneous disasters, e.g. private companies. These players many times have agreements with or cooperate with the main players highlighted in this study.

This report reflects the conclusions drawn from an extensive desktop analysis of current working papers, documents and white papers; interviews with procurement, emergency, logistics, air, shipping, and warehouse officers; site visits to logistics offices, warehouses, and regional hubs; and phone/email contacts with other relevant actors in humanitarian emergency response transport, logistics and stockpiling. Recognising that there are many players in the supply chain and that each may have its own mandate, definition of logistics, and capacity, the study focused on the most common, predictable mechanisms and organisations that would be present in each of the three scenarios.

Gaps in the transport and logistics capacities of the humanitarian supply chain were identified through mapping assets and functions that can be reasonably expected, measured, and evaluated within the context of the three disaster scenario from the immediate (48 hours) response to the end of emergency operations (180 days). The study recommendations take into account that the gaps could be filled by any of the other players but provide suggestions as to how the overall capacity can be increased and how performance can be effectively measured. The study also recognises that *ad hoc* support from various players, e.g. military, public / private / commercial entities, MS, etc., can be crucial in an emergency but cannot be predicted to the extent whereby it becomes a reliable humanitarian capacity.

Each disaster type highlighted in the scenarios had to be defined by either official definitions or commonly recognised and agreed upon parameters. Only the Complex Emergency had an official Inter-Agency Standing Committee (IASC)³ definition including aspects that were specific to transportation, logistics, and/or stockpiling. The team established the below definitions, using UN and other humanitarian documents:

- **Complex emergency** – A humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme⁴;
- **Sudden onset emergency** – Usually the result of sudden natural events (geological and climatic hazards) such as wind storms, floods, wild fires, landslides, avalanches, earthquakes and volcanic eruptions;
- **Slow onset emergency** – Includes those disasters (environmental) resulting from crop failure due to drought, the spread of an agricultural pest or disease, floods, or a gradually deteriorating political situation leading to conflict.

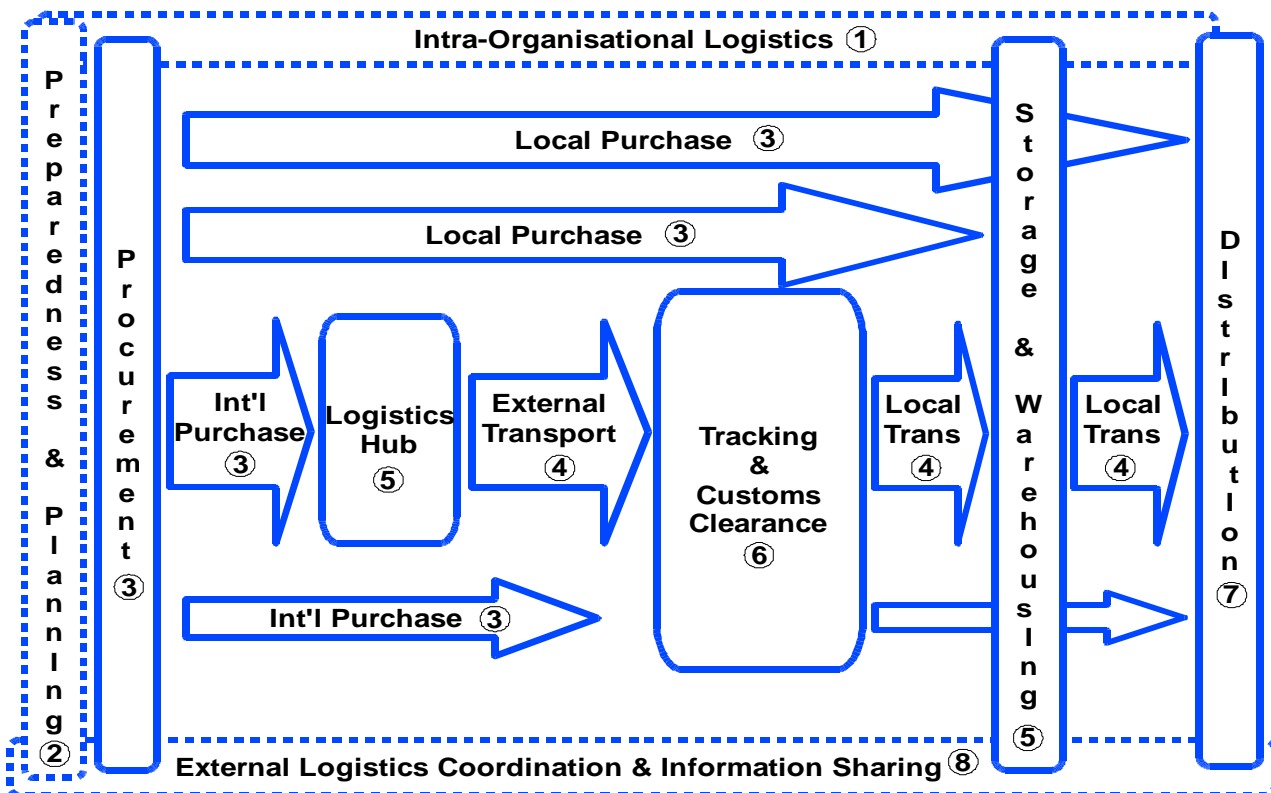
³ <http://www.humanitarianinfo.org/iasc/>

⁴ Inter-Agency Standing Committee definition.

It is the combination of the disaster definitions, the functional areas of the supply chain being examined, and the focus on the main players identified that provided the study with the parameters under which it has been executed. As a recap, they are:

1. Three simultaneous or consecutive disasters occur in the world requiring international response and assistance;
2. The international community responds immediately (within 72 hours) and sustains life-saving, relief efforts (up to 180 days);
3. Current and/or on-going operations of the international community are not disrupted in responding to these scenarios;
4. Effectiveness, efficiency, appropriateness and comparative strengths and advantages are the underlying criteria for analysis and recommendation.

This report makes recommendations that are deemed to be the most significant and vital for enhancing the capacity of the humanitarian community in transport, logistics, and stockpiling for emergency response. The report highlights eight categories within the humanitarian supply chain – Intra-Organisational Logistics, Preparedness and Planning, Procurement, Humanitarian Transport, Storage and Warehousing, Tracking and Custom Clearance, Distribution, and External Coordination and Information Sharing. To visualise these categories and the interaction of the humanitarian supply chain as a whole, the team developed a generic supply chain model, representing the functional categories of the study, numbered to correspond to respective chapters of the report.



Based on the eight functional areas of the supply chain highlighted above, the table below summarises the main players 'most likely' area of activity. This provides the reader with a basic frame of understanding where the main players fit in the model above and is not meant to be exhaustive nor exclusive to the activities mentioned. Each of the main players mentioned has a significant capacity to perform within the functional area as determined from the desktop study and interviews. 'Main players' in the table below are defined as those organisations whose mandate or role put them in a prominent position within the functional area and can reasonably be expected to operate in all three disasters. Again, it is recognised that all players may have a significant role in one or more of the functional areas; the inference is that the number of main players diminishes the closer to the 'last mile' distribution the supply chain flows. For example, the military or private companies may be heavily involved in strategic airlift and/or storage for all three disaster types, but normally do not get involved in the actual distribution of humanitarian supplies to the end-user. Where all players have a capacity in soft issues, such as 'co-ordination', the table above can help identify where along the supply chain which players should be included. Briefly, the definition of the main players is:

- MS – Member States of the European Union;
- HA orgs – United Nations, Non-Governmental, and International Organisations;
- Military – International military, e.g. NATO forces, UN Peacekeepers, MS forces;
- Private-Public entities – commercial companies having a recurring role in international disaster response, e.g. TNT, DHL, UPS

SUPPLY CHAIN FUNCTIONAL AREA	MAIN PLAYERS
1. INTRA-ORGANISATIONAL LOGISTICS	MS, HA Orgs, Military, Private-Public entities
2. PREPAREDNESS & PLANNING	MS, Military, HA Orgs, Private-Public entities
3. PROCUREMENT	MS, HA Orgs, Private-Public entities
4. HUMANITARIAN TRANSPORT	MS, Military, HA Orgs, Private-Public entities
5. STORAGE & WAREHOUSING	HA Orgs, Private-Public entities
6. TRACKING AND CUSTOMS CLEARANCE	HA Orgs, Private-Public entities
7. DISTRIBUTION	HA Orgs
8. EXTERNAL LOGISTICS CO-ORDINATION & INFORMATION MANAGEMENT	MS (donors), HA Orgs, Military, Private-Public entities

A gap analysis was performed as a composite for the community as a whole and not reflective of each individual organisation. The process determined whether or not there was a possible gap in the supply chain. The first determination was whether or not the community currently has sufficient capacity within each functional category. For example, is there a relevant co-ordination mechanism in place to handle the response of all the players in three simultaneous emergencies? If yes, then there is "no gap" under Logistics Co-ordination; if no, then there is a "possible gap". As the report will highlight, much activity in recent years has specifically focused on transport and logistics. Not all of these capacities have yet materialised to the extent envisioned. Once a possible gap was identified, further analysis determined whether or not the organisation was planning or had begun a process to fill the gap. For example, the UN established a Logistics Cluster for the

co-ordination of logistics activities during emergencies. If there were plans or work-in-progress that met the gap needs, then the final result was no gap. If there were no plans to fill the gap, then a 'possible gap' was maintained. Finally, if it was determined that a possible gap still existed, the analysis identified the optimal capacity for each category and recommendations developed. This was done, in part, through the review of several white papers and other current documents inside and outside of the humanitarian community as to best practice, lessons learned, etc. Annex 4.0 is a synopsis of the desktop study.

The following table summarises the report findings related to model above.

	GAP	POSSIBLE GAP	RECOMMENDATIONS
1. INTRA-ORGANISATIONAL LOGISTICS	<i>HA orgs:</i> - how funding and staff requirements are presented to donors for prioritisation; - prioritisation of emergency personnel.	<i>MS:</i> - lack of govt. co-ordination; - emergency funds are short-term.	- Logistics personnel funded as core staff and included in all planning activities; - Co-ordination of relief activities should go through existing mechanisms.
2. PREPAREDNESS & PLANNING	<i>MS:</i> - Lack of measurable outcomes from preparedness activities. <i>HA orgs:</i> - Qualified staff; - Lack of training for planning; - Lack of standardisation of requirements.	<i>MS:</i> - Political sensitivities do not allow for some support activities. <i>HA orgs:</i> - Lack of ability/ expertise in organising and running planning exercises.	- Regular scenario-based planning exercises should be supported for supply chain main players; - Programming players to include Logistics in planning; - MS to offer expertise (govt. or military); - MS to fund standardised commodities; - Standardised relief items identified and defined.
3. PROCUREMENT	<i>HA:</i> - Ability to procure/ lease services pre-disaster.	<i>MS:</i> - Inconsistency in procurement (by MS or through 3 rd party).	- List of 10-15 most common, life-saving relief items prioritised for front-loaded funding.
4. HUMANITARIAN TRANSPORT	<i>MS:</i> - Misuse of commercial KPIs ⁵ for measuring HA performance.	<i>MS:</i> - Understanding of 'last resort' being first used in the case of military assets; - Suspending support prior to appropriate replacement being identified. <i>HA orgs:</i> - Strict mandates may inhibit flexibility; - Competition among relief agencies can run up costs.	- The use of a co-ordination mechanism that includes the majority of main players (e.g. Logistics Cluster); - If necessary, as a complement to the Cluster, smaller agencies form a consortium that speaks with one voice; - KPIs to be developed for HA-specific transport performance.
5. STORAGE & WAREHOUSING	<i>MS:</i> - No consensus on supporting HA stockpiling. <i>HA orgs:</i> - Lack of common or	<i>MS:</i> - Inconsistency among supporters to stockpiling as to procedures. <i>HA orgs:</i>	- Co-ordination between warehouse managers at UNHRD and RLU; - Development of software that can accurately and timely identify stockpiling

⁵ KPIs – Key Performance Indicators

	universal commodity tracking system.	- Lack of control of stockpile 'users' on who can be included in warehouse; - Lack of forward bases/staging areas.	quantities and information sharing.
6. TRACKING & CUSTOMS CLEARANCES	HA: - Lack of understanding of customs procedures and requirements among all players.	MS: - May not have bi-lateral or military agreements in place to allow interventions.	- Workshop highlighting customs issues, common protocols or procedures developed.
7. DISTRIBUTION	HA orgs. - Implementing partners different from main players in initial part of the supply chain.	MS: - Reporting requirements vs. ability/timing of reports. HA orgs: - Lack of direct control of reporting agencies (last mile).	- Potential sharing of distribution/ monitoring staff; - Increase logistics staff at field-level; - Investigate new technologies that facilitate timely reporting.
8. EXTERNAL LOGISTICS CO-ORDINATION & INFORMATION MANAGEMENT	HA orgs; - Lack of community-wide co-ordination of supply chain activities; - Inability of systems to 'speak' to each other.	MS: - Lack of co-ordination or redundancy of efforts.	- Encourage participation and use of Logistics Cluster as co-ordination mechanism; - Begin co-ordination during preparedness & planning phases; - Increase capacity of existing systems instead of inventing new ones.

2.0 Objectives

The prime objectives of the study are:

- 1) To identify potential gaps in the international emergency response capacity in terms of transport, logistics and stockpiling through a comparison of existing and planned capacities with a number of baseline disaster scenarios.
- 2) For this purpose map the current and planned response capacities of (i) major international humanitarian actors (UN agencies, Red Cross/Red Crescent Family and international NGOs), including their partnerships with private/commercial sector and (ii) EU Member States as laid down in existing arrangements in particular in the following areas: Intra-Organisational Logistics, Preparedness and Planning, Procurement, Humanitarian Transport, Storage and Warehousing, Tracking and Customs Clearance, Distribution, External Logistics Co-ordination and Information Management.
- 3) Make recommendations on further strengthening response capacities of key international humanitarian actors.

3.0 Conclusions

The humanitarian supply chain has 'hard' and 'soft' issues affecting it. The 'hard' issues include the transportation (air, sea, and land), equipment, and commodities that are used to transport goods and personnel to and from a relief operation, stockpile relief commodities, and provide life-saving relief to the disaster affected population. These are

quantifiable assets calculated from the targeted population demographics and locations. 'Soft' issues cannot be counted and include co-ordination and performance measurement. Staffing issues can be included in either or both.

The consensus among the interviewees is that **with enough time and funding there are sufficient physical assets available to the humanitarian community to meet the requirement of responding to the multiple scenarios**, while maintaining current levels of humanitarian activities within their organisation. This view was analysed against the study parameters of emergency response for 180 days and the consensus that each disaster would have a caseload of up to 500,000 targeted beneficiaries. Therefore, in order to increase the capacity of the hard assets within the humanitarian supply chain, the key deciding factors are the political decision by foreign governments to support a disaster response / humanitarian assistance operation and the pre-allocation of funding.

There was much discussion among the interviewees regarding the gaps that exist in the co-ordination of assets, strategic decision-making, staffing requirements, and performance measurement criteria. Competition for assets, the need to be 'first in, last out', supporting donor-driven political priorities instead of needs-driven priorities based purely on humanitarian criteria, the on-going debate around the use of military/civil defence assets in disaster response and humanitarian assistance work, and simple organisational and personal egos all contribute to creating the gaps. **Based on the study's findings, there are no large gaps in the transport, logistics, and stockpiling physical assets in the humanitarian supply chain, aside from the financing of these 'hard' assets. There are gaps in Intra-Organisational Logistics issues, Preparedness & Planning (with staffing and training), Procurement, Tracking & Customs Clearances, Distribution, and External Logistics Co-ordination and Information Management.**

Based on the study, there is an inability to accurately measure performance using disaster relief / humanitarian assistance-specific criteria. The result is that some logistics operations are evaluated as inefficient or funding withheld from critical operational assets. The development and acceptance of a common set of key performance indicators (KPIs) should be made a priority. These KPIs can then be used to evaluate not only an individual organisations' performance, but also relative performances between organisations. Currently, there is no accepted methodology that will allow the cost-effectiveness / efficiency of the military to be evaluated against the UN and NGOs, a Member State against a HA organisation, etc. KPIs are being developed by the Fritz Institute which could form the basis of a workshop or further discussion. It is recommended that the final logistics KPIs be incorporated into other performance measures to gauge overall humanitarian effectiveness and efficiency and not used as a stand-alone indicator of an organisation's performance.

MAIN REPORT

Introduction

Logistics means different things to different groups. To the military, it is "the science of planning and carrying out the movement and maintenance of forces."⁶ This includes aspects which deal with design and development, acquisition, storage, transport,

⁶ NATO Logistics Handbook 2007

distribution, maintenance, evacuation and disposal of material; transport of personnel; acquisition or construction, maintenance, operation and disposition of facilities; acquisition or furnishing of services; and, medical and health service support. TNT, a global transportation and distribution entity headquartered in the Netherlands, defines their business as “delivering the 'business' of customers at the right time and at the right place.”⁷ TNT picks up, transports, sorts, handles, stores and delivers documents, packets, parcels, and freight by combining physical infrastructures such as depots and trucks, electronic infrastructures such as billing and track-and-trace systems, and commercial infrastructures to attract and retain customers. To senior logistics representatives working in an advisory committee set up by the Fritz Institute⁸, the common definition of logistics is “**the process of planning, implementing and controlling the efficient, cost-effective flow of and storage of goods and materials as well as related information, from point of origin to point of consumption for the purpose of meeting the end beneficiary's requirements**”.⁹ For the purposes of this study, the latter definition was used for the mapping and determination of any gaps.

In order to provide concrete examples of each disaster, the interview questions referenced the Lebanon crisis 2006 as a complex emergency; the Pakistan earthquake 2005 as a Sudden Onset disaster; and the Horn of Africa drought (2008) as a Slow Onset disaster. These examples were provided only as a guide for clarification of the definition and not as (mapping or gap analysis) case studies. The functional areas of the report had been pre-determined as Intra-Organisational Logistics, Preparedness and Planning, Procurement, Humanitarian Transport (Air, Sea, and Land), Storage and Warehousing, Tracking and Customs Clearance, Distribution, External Co-ordination and Information Management. Some key considerations between the scenarios and the functional areas of the supply chain are highlighted in the table below:

	COMPLEX EMERGENCY	SUDDEN ONSET EMERGENCY	SLOW ONSET EMERGENCY
DESCRIPTION / CONSIDERATION	<i>A humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country programme¹⁰.</i>	<i>Usually the result of sudden natural events (geological and climatic hazards) such as wind storms, floods, wild fires, landslides, avalanches, earthquakes and volcanic eruptions.</i>	<i>Includes those disasters (environmental) resulting from crop failure due to drought, the spread of an agricultural pest or disease, floods, or a gradually deteriorating political situation leading to conflict.</i>
EXAMPLES	Lebanon (2006) ¹¹	Pakistan (2005-6) ¹²	Horn of Africa - (Kenya, Uganda (inclusive of the Karamoja region), Ethiopia,

⁷ <http://group.tnt.com/aboutus/ourbusiness/index.aspx>

⁸ <http://www.fritzinstitute.org/index.htm>

⁹ Thomas and Mizushima, 2005, Fritz Institute.

¹⁰ Inter-Agency Standing Committee definition.

¹¹ UNJLC End of Mission Report - Lebanon

¹² UNJLC End of Mission Report - Pakistan

ELEMENTS OF THE CRISIS	Conflict	Earthquake (7.6 Richter)	Eritrea, Djibouti and Somalia) (2007-8) ¹³ Drought, Market factors, Crop failure
DURATION	2 Months	5 Months	On-Going
KILLED	1,100+	75,000+	100's (accurate data unavailable)
AFFECTED	1,500,000+	3,500,000+	16,950,000+
TONNAGE DELIVERED	25,205MT – Food, water, shelter, NFI's	33,500MT – Shelter, NFI's, Foods, Medicine	700,000MT - Food
FUNDS REQUESTED/ LOGISTICS ¹⁴	\$18,535,122 USD	\$153,960,968 USD (under coord. and support services)	\$1.32 billions USD (all, including food)
FUNDS RECEIVED/ LOGISTICS	\$22,504,540 USD (100%)	\$90,789,236 USD (59%) (under coord. and support services)	Pledged \$769,000,000 USD
TRANSPORT TYPES USED	Airplanes, ships, passenger vessels, lorries, small vehicles	Aircraft, helicopters, ships, lorries, small vehicles	Lorries, aircraft, ships, small vehicles
OTHER HA ISSUES	Large-scale infrastructure damage to road, electricity, water, and comms networks; Air and sea block continued after cessation of hostilities; UXO danger	Population displacement; Impending winter/snowfall; roads/infrastructure damaged	Reduced access to food/water, erosion of livelihoods, heightened vulnerability to malnutrition; mass population migration
GENERAL CHARACTERISTICS OF DISASTER TYPES			
INTRA-ORGANISATIONAL LOGISTICS	Unknown demands, no access, staff security, requires political solution, might be long-term.	Unexpected demands, rapid programming requirement, possible escalation of other crises.	Long-term solutions needed, chronic situations, requires government policy actions.
PREPAREDNESS AND PLANNING	Politically sensitive to plan, escalation can be sudden or slow.	Can identify historical needs, focus on strategic planning.	Have longer to plan and prepare; mitigation activities possible.
PROCUREMENT	Local purchase may not be possible.	Known items can be pre-purchased, common items but higher prices likely, possible local purchase.	More time to purchase needs, lower prices with local purchases, more variation of items due to no. of orgs present.

¹³

<http://www.reliefweb.int/rw/hlp.nsf/db900ByKey/hornofafrica?OpenDocument>

¹⁴

Reference documents:

- Revised Lebanon Crisis Flash Appeal 2006;
- EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR HUMANITARIAN AID – ECHO Emergency Humanitarian Aid Decision - 23 02 01, ECHO/LBN/BUD/2006/01000;
- Flash Appeal: South Asia Earthquake 2005, Table D: Requirements, Commitments /Contributions and Pledges per Sector Report as of 28-January-2009;
- NATO EADRCC FINAL SITUATION REPORT N° 23 EARTHQUAKE PAKISTAN;
- Pakistan 2005 Earthquake Preliminary Damage and Needs Assessment;
- IFRC Horn of Africa Exceptional food security crisis, A report to the Regional Humanitarian Partnership Team (RHPT) coordinated by United Nations Office for the Coordination of Humanitarian Affairs Regional Office for Central and Eastern Africa (OCHA) Dec 2008,

HUMANITARIAN TRANSPORT	Access issues; many agreements needed; security of staff/items; flexibility key; damaged infrastructure.	Rapid needs usually require expensive means – air, may have infrastructure issues.	Can utilise cheaper (slower) means of transport, time to rebuild infrastructure for efficiency.
STORAGE AND WAREHOUSING	May be unable to stage in-country; insecurity of goods; focus of armed activity.	In-country staging needs likely and possible, disaster-specific needs stored.	Slower turn-over of goods, less life-saving items needed, longer or chronic needs likely.
TRACKING AND CUSTOMS CLEARANCES	May be unable to track, no official customs officials, contraband competes with relief.	May need multiple cross-border operations, temp official custom clearance waivers.	Likely customs clearance through government officials, tracking more likely.
DISTRIBUTION	Ad hoc and highly dependent on urban vs. rural, may not be able to use Int'l staff.	Prioritisation difficult with multiple needs and agencies; may have to use Int'l staff.	Established distributions more likely to include all relief items, may use govt. counterparts.
COORDINATION AND INFO MANAGEMENT	Extremely important for safety, security, continued access, HA credibility relies on following procedures.	Most important at the outset, varied sources of information need to be collated, standards set up-front for hiring, rentals, etc.	Mostly occurs in the initial response through the government counterpart, easier to establish mechanisms at outset

Another issue greatly affecting the mapping and gap analysis is the scale and location(s) of the disasters. This was more difficult to establish at the outset. Although vital in analysing the supply chain capacity and identifying gaps, the team could not force this issue prior to the interviews. Thus, this became the subject of the initial interview questions. The team felt that if the majority of humanitarian and other players provided similar responses to *if / where* they were planning for each of these disasters, then specific recommendations could be made against the specific responses. Unfortunately, none of the interviewees was willing to go into any useful detail regarding Complex Emergencies. The issue was deemed too politically sensitive to pursue officially, because no country appreciates being the subject to response planning due to an impending conflict. The Sudden Onset and Slow Onset disasters were addressed by historical and/or cyclical data - Bangladesh is plagued by severe flooding at least once every 2-3 years; the Atlantic hurricane season is June 1 through November 30. Obviously, if all three disasters take place in the same area or country, the supply chain capacity or gaps would be greater than if each takes place in completely different regions of the world. In order to maximise the potential capacity of the supply chain, the study assumes that the disasters take place in three different regions.

It should be noted that while the study mainly focuses on HA organisations and EU Member States¹⁵ there are many other players that participate in a disaster relief. In some situations an organisation is created specifically for a particular disaster or crisis but is not present in any other emergency, e.g. UN Relief and Works Agency (UNRWA).¹⁶ In other cases, organisations or entities provide important logistics services worldwide on an *ad hoc* or specifically mandated basis that does not meet the criteria for the study analysis. This does not mean that these organisations are irrelevant to the overall transport, logistics, stockpiling activities required to meet the scenarios. It only recognises that an

¹⁵ For reasons of comparison, completeness and academic background research, also governmental organisations of two non EU Member States (Norway and United States of America) as well as academic / research institutions (Fritz Institute and ECORYS Research and Consulting) have been interviewed.

¹⁶ <http://www.un.org/unrwa/>

analysis of capacity must take into account those assets that can be counted on in every case and that provide, in this case, life-saving and immediate relief to the affected population. The organisations that fall under this category but that figure prominently in this report's analysis and recommendations are:

- **Military/civil defence** – This includes individual MS military/civil defence, e.g. Belgian Air Force, that have specific assets and/or specialised skills to support the humanitarian supply chain. This can also refer to regional military alliances such as NATO or forces established for a particular emergency such as the force of the African Union (AU) sent to Somalia in 2007. Also included in this category is the UN Department of Peacekeeping Operations (UNDPKO). In Darfur, the AU and UNDPKO have a joint force, UNAMID that is a hybrid of the two organisations. These entities do not have a humanitarian mandate, although they may use humanitarian means to achieve military and governmental objectives. The inclusion of military assets into the humanitarian supply chain is based on political will of governments. The importance of military assets in past and future disasters, especially, but not limited to, complex emergencies, is acknowledged but their presence may be in direct conflict with the humanitarian principles of impartiality, neutrality, and independence.
- **International Committee of the Red Cross (ICRC)** – As for the scenarios provided for this study's analysis, ICRC would most likely participate in one of the three scenarios – the complex emergency. ICRC does provide (natural) disaster response only in cases where they already have established a presence in the affected area due to a previous conflict (Kashmere, Aceh). Due to the sensitive nature of working with all sides of a conflict while remaining neutral and impartial in all aspects of their work, the ICRC will provide logistics services and will co-ordinate their logistics activities on a case-by-case basis as long as it does not infringe on the performance of their main mission and mandate. The ICRC has a significant logistics system at its disposal and co-operates mainly with the other organisations in the Red Cross / Red Crescent Movement, but also provides logistics services¹⁷ to other parties and co-ordinates its activities with others¹⁸
- **Public-Private Partnerships (TNT, DHL)** – These entities often support humanitarian organisations with staff, services, facilities, and/or training. Their support can be for a specific disaster, e.g. 2006 tsunami where Coca-Cola provided US\$20 million in financial and in-kind donations¹⁹, or to augment a specific capacity, e.g. in 2006-8, the UNHRD in Ghana was housed in the TNT warehouse until the construction of the permanent facility was completed. The participation of private entities in humanitarian relief activities cannot be guaranteed in the study scenarios except where they have formed partnerships with humanitarian organisations, such as TNT's support to the UNHRD and DHL's Memorandum of Understanding with UN OCHA to provide (upon request) free-of-charge handling, warehousing and loading services at airports for all disaster responders in natural disasters.

Given the scale of the disaster response and all of the aspects associated with its examination, this is not the only study looking at disaster response capacity. The European

¹⁷ 50% of all ICRC airlift capacity in Afghanistan is used by NGOs.

¹⁸ E. g. joint air operations with WFP in Sierra Leone and MFS in the Central African Republic; MOU with WFP on air operations; use of UNHAS if feasible.

¹⁹ <http://www.un.org/Pubs/chronicle/2006/issue3/0306p50.htm>

Commission, through its Civil Protection Unit (CPU) (DG Environment) is also investigating the potential gaps between current European disaster response capacities and the response capacity required by potential future disaster scenarios with a special focus on the Community Civil Protection Mechanism. This effort, in turn, will require further insight on the type and likelihood of major disasters that could strike EU Member States or third countries in the future (see Annex 4.3 for TOR). The consultants of this study have spoken with the authors of the above mentioned study and have tried to avoid any conflicts and/or overlap in perspectives. Subsequently, it is out of the scope of this study to look into EU Member States Civil Protection capacities (teams / modules) and processes.

The following sections will review the mapping, identification of gaps, and recommendations for improving the supply chain functional areas, as analyzed against the background of the 3-disaster scenario and the model provided in the summary above.

1.0 Intra-Organisational Logistics

Map:

This heading covers aspects in logistics that fall outside specific supply chain functions such as personnel and other internal processes. Overall, the general logistics organisation of the different partners that were involved in the study appears to be sufficient against the underlying scenarios. **However, the recognition of logistics as a strategic function²⁰ within the different organisations varies widely.** In some organisations, logistics is perceived as a “back office” function and has very little connection to other relevant processes like planning and programming. Some organisations have recognised that major parts of their respective annual expenditures pass in one way or the other through their logistics departments (estimations are up to 70 – 80% (IFRC, WFP, Fritz Institute)) and have partly reacted by strengthening them accordingly. **Challenges surface particularly in prolonged periods without major disasters / emergencies when these capacities are questioned again.** While nobody doubts the necessity to maintain appropriate personnel strength in police, fire and medical departments at all times to be able to react when the 112 - call comes in, this seems not to be the case in humanitarian logistics. This holds true across all of the disasters in the scenario.

Some organisations voiced **concerns about their ability to grow fast enough from their core logistics staff to sufficient strength in times of need** i.e. in the onset and during major or multiple disasters. Re-assigning personnel from other units, hiring of additional personnel, using stand-by partners and other staffing mechanisms is often not an equivalent solution to full-time professional logistics staff along all phases of the supply chain. The biggest obstacle to maintaining adequate staffing levels is the fact that **funding is project or emergency appeal related and is only available as soon as the appeals are sufficiently funded.** In-house competition between the programming and logistics departments for funding and between bigger international logistics providers (IO's, UN, NGOs and businesses) for the same expertise could further aggravate the situation.

Gap:

In general, there was a consensus that there would **not be enough qualified, trained**

²⁰ <http://www.fritzinstitute.org/prgSC-HLC2008-proceedings.htm>

staff to efficiently respond to the scenarios. Each organisation interviewed defended their ability to respond within the 72-hour immediate timeframe with their own staff, but there was **a gap in the ability to draw on these same first responders for the full 180 days.** The reasons given for the gap was varied – prioritisation of core logistics staff, funding, training, etc.

Member States – Typically, in MS more than one Ministry is involved in disaster relief and humanitarian assistance – Foreign Affairs, Interior, Environment, Defence, etc. Each Ministry has its own focus to support, which in turn leads to a lack of communication between the different actors on national level. Due to the fact that involvement of MS in specific disaster response and humanitarian assistance operations is only partially a decision based on humanitarian principles (political and economic interests are considered as well), the extent of involvement is considered on a case-by-case basis and therefore does not lend itself to be predictable resource. MS may change their respective representatives regularly increasing the potential for gaps in co-ordination. The table in Annex 4.3 shows examples of the different departments within MS that may be responding to the disaster scenarios at the same time.

There is a gap in the ability of a donor to respond to disasters vs. development projects. The identification of needs and development of the project document for development projects can be months and last years. Disaster funding can be identified and disbursed quickly but has a short-term life span specific to a project's duration. However, in continuation of the above mentioned fact that political / funding decisions vary strongly from situation to situation, also in this case MS react rather to emergency appeals then provide continuous support to logistics activities.

HA organisations – There is an internal gap in how HA organisations present their funding and staffing requirements. Many HA organisations do not prioritise emergency personnel in general and supply chain personnel specifically during times of low numbers of major emergencies resulting in gaps of qualified personnel when an emergency does occur.

Recommendation:

Recognition of the importance of supply chain activities in an emergency response can be exemplified by including logistics personnel in planning and programming activities both pre-disaster and during the response. Co-ordination of the emergency activities through the existing co-ordination mechanisms is vital while allowing MS and organisations to maintain their unique identity and independence. Personnel and organisational requirements, within the context of the underlying scenarios of the study, should be examined for internal possibilities to ensure proper staffing of their logistics departments. Shortfalls in core logistics staff should be justified and brought to the attention of the international donor community for additional core funding for logistics personnel. With 70-80% of the funding for emergencies going through logistics activities, it is suggested donors take a longer-term approach to funding that is more core function related to emergency and not time bound by project-related funding.

2.0 Preparedness and Planning

2.1 Planning

Map:

The methodology of using underlying scenarios was surprising to some interview partners in the humanitarian organisations. While contingency planning often takes place for specific cases, many of the organisations informed that they actually do not do their planning processes based on scenarios, but rather based on historical data or increasingly country specific based on different tools (World Bank Logistics Performance Index (LPI); UNICEF). As with other organisations outside the humanitarian sphere, the trend to shift from planning based on “worst–case scenarios” to planning based on “most–likely scenarios” was observed. The most frequent obstacle given for not using scenario–based planning was the reluctance to forecast disasters and emergencies in defined countries / regions of the world on political grounds. The team's experience with military/civil defence personnel confirm that military are very familiar with scenario-based training and exercises. When it is too sensitive to overtly plan for a response in a country deemed 'fragile' and soon to become a complex emergency, a fictitious nation is used providing all the same parameters as the real one. Very little planning is done on a level that engages both programming and logistics departments within individual organisations and, with the exception of Avian-Human Influenza, no scenario-based exercise has taken place on a community-wide basis that includes the majority of logistics players. This can be true for MS, including DFID and other donors interviewed, who had some individual participation with military in disaster exercises but nothing on a ministry-wide scale or regular basis relating to humanitarian response. Private companies such as TNT, stated their planning is mostly focused on staff security/safety in the affected countries and continuity of operations, as required, as they have no direct mandate to respond to the scenarios.

There is no community-wide mechanism for planning a global response or capturing the best practices/lessons learned from a previous response in order to better prepare for the future. Individual organisations, e.g. World Vision, may hold an internal logistics lessons learned workshop but then the output is not disseminated internally or shared with a larger audience. Individuals among all the players may have extensive experience in emergency response, but their knowledge and skills are not used to improve future responses. For example, Italian Co-operation has some personnel that are ex-military and have been involved in many disaster responses from the Italian government. These personnel are not provided as resources for (and, unfortunately, are not requested by) the humanitarian community. While the necessity to draw and implement lessons learned as well as develop best practise is widely recognised within the community, the tools to transfer them into the organisational memory are rather limited.

Gap:

There is a gap between the global planning for disasters response and the implementation of an emergency response. Too many players are involved and not enough emphasis is given to planning by those responsible for the response. The complex emergency was the most sensitive of the scenarios. Planning almost always includes some aspect of the military's involvement which, in pre-conflict times, the humanitarians did not want to discuss. Even if one or two organisations take preparedness and planning seriously, there continues to be a gap as it must be done with the majority of players and in accordance

with agreed standards (which do not exist). The other gap in this functional area is in the enforcement of what has been prepared or planned. Not wanting to be quoted, interviewees from MS and HA organisations stated that even when they participated in planning and preparedness events, as soon as the emergency happened, high-ranking officials took over and made operational decisions that were completely outside what had been planned.

Member States – As complex emergencies are political in nature, overtly preparing for a complex emergency in a fragile state can be very sensitive to MS causing a gap in the ability to properly prepare for such a disaster. If politicians participate officially in a complex emergency exercise that identifies a specific country as in or falling towards civil disruption, it makes a political statement that most are unwilling to make. Military planning of such events is even more sensitive in that it can be construed as the MS planning to use military force against the specific country.

There is a gap in measurable outcomes from preparedness and planning activities. This causes donors to be reluctant to provide regular and/or significant funding pre-disaster. Donors plan for 'funding' the response to a specific, existing emergency while operational agencies plan for the response to the emergency that has not occurred yet. This leads to a gap in preparedness due to the donor wanting to provide funds as quickly as possible after the disaster occurs and the responder wanting to fund the preparedness for the disaster before it occurs.

Humanitarian organisation – Several gaps exist in the HA community's desire and ability to prepare and plan for future emergency responses. First, as mentioned previously, staffing levels are often dictated by project activity and gaps exist in qualified, available staff to take part in the preparedness/planning activities when levels of disaster response and humanitarian assistance operations are low. Secondly, HA organisations are expected to hire personnel with the skills needed to perform their jobs. The donors are reluctant to fund the training of personnel; however, there was no training known in the civilian world that can properly prepare for warfare, insecurity, and public safety issues (complex emergency), mass death and destruction (Sudden Onset), mass migration/movement and death (Slow Onset) that includes decision-making (on higher than operational / technical level) in these scenarios. Third, there is a gap in the ability and experience of HA personnel to organise and effectively run a planning exercise.

Recommendation:

Humanitarian organisations deeply involved in humanitarian supply chain management and logistics should embark / participate on a regular basis in scenario-based planning exercises in order to obtain a more accurate picture about challenges pertinent to different disasters and emergencies that might occur simultaneously or consecutively. The highest value would be achieved if all providers / recipients (humanitarian organisations, donors, potentially affected countries, etc.) would be involved. It is vital that the programming side of emergency response be included in the development of needs and takes part in the determination of the best requirements/commodities within the supply chain. MS can offer subject-matter experts, to include military or civil defence / protection personnel, in building, organising, running and evaluating preparedness activities and planning exercises.

2.2 Education, training, exercises and events

Map:

There are relatively few education and training (formal and vocational) opportunities for logistics personnel of humanitarian organisations. Vocational training is provided by WFP in the framework of its Logistics Response Team (LRT) Training in Brindisi, Italy, and by the Fritz Institute with its Certification Programme. Additional training opportunities are most often intra-organisational and dependent on case-by-case funding (DG ECHO funded a series of logistics related workshops for UNHCR in 2008). An example of a formal, academic education is the MAS Programme for Humanitarian Logistics and Management of the University of Lugano, Switzerland²¹. Other events taking place that focus on logistics management are the annual Humanitarian Logistics Conference²², the Fleet Forum²³, as well as seminars under different frameworks and networks.

Gap:

The above mentioned education and training opportunities are partly difficult to access for some organisations mainly due to (project) funding limitations²⁴, despite the fact that most of them are open also to staff of other organisations. Other events (conferences, seminars and workshops) provide good information exchange platforms but are, with a few exceptions, not organised on a regular basis. The big void is in logistics related exercises. While logistics are one feature of many international field and table-top exercises, there are hardly any such exercises that focus solely on logistics. Exceptions only cover specific facets of the overall supply chain management and logistics (e. g. transport pooling exercise in the framework of the European Commission). External expertise (e. g. military) for developing appropriate exercises and training modules, including the development of lessons learnt, is not adequately used in humanitarian organisations but could provide valuable insight and example to the best ways forward.

Recommendation:

In order to provide enough and high quality training for logistics personnel of all humanitarian organisations, existing education / training / exercises and other events should be assessed. Identified gaps should be filled with a systematic, longer-term approach. Acknowledgement must be given to the relatively high turnover of personnel in the humanitarian organisations and to provide logistics staff a better overview over the whole area of disaster / emergency management. A series of global table-top simulation exercises with the participation of a) all stakeholders, including military/civil defence, and b) covering all (most) of the supply chain processes would significantly increase the effectiveness and efficiency of the humanitarian community at large.

2.3 Standardisation

Map:

²¹ <http://www.humanitarianlogistics.ch/>

²² <http://www.fritzinstitute.org/prgSC-HLC2006-proceedings.htm>

²³ <http://www.fleetforum.org>

²⁴ IOM

Over the last few years, a lot of effort has been dedicated to the standardisation of processes, procedures and goods in the framework of the overall humanitarian supply chain. Partial results proved that, to a certain extent, harmonisation can be achieved. The Fritz Institute hosts workshops, seminars and studies through the annual Humanitarian Logistics Conference and Humanitarian Logistics Association²⁵ in order to bring logisticians together. A consortium of NGOs – World Vision and Catholic Relief Services (CRS) commissioned a study to determine if they could standardise relief supplies. The study itself is confidential; however, the table below²⁶ reflects the type of supplies listed in the study. It can easily be seen that each items has several potential specifications. The work on standardisation continues slowly as it attempts to sort through literally hundreds of relief items used by the HA community in the disaster scenarios reflected in this study.

SHELTER	WATSAN	OTHER
Tents	Hygiene Kit	Generator
Kitchen Kit	Latrines	Vehicles
Blankets (wool)	Jerry Cans (10ltr)	Prefab Ablution Unit
Sleeping Mats	Water Pumps	Prefab Office
Mosquito Nets	Tanks (7500 ltr)	Prefab Warehouse
Plastic Sheeting	Water Purification System	High Energy Biscuits (BP-5)
	Water Purification Packets	

While these events and studies produce results, global standardisation has failed to date mainly for three reasons: 1) The standards were developed unilaterally and are not accepted by / acceptable for other stakeholders; 2) The implementation of the standards would require considerable effort and resources, but would not add enough value to abolish the old, current standards; and 3) The standards are too varied and not uniform within the community or other organisations are completely unaware that standards exist.

Gap

There is a gap, using the underlying scenarios of this study, of identifying the most common, life-saving goods/services required for all three disasters. There is also a gap in standardising the nomenclature, specifications, etc. of relief items used by various agencies.

Member States – With MS providing assistance in many forms and through different Ministry channels, there is no assurance that in-kind support will be consistent or standardised. Those donor channels that exist are mainly for the foreign assistance groups, e.g. DFID, Irish Aid, DE ECHO, etc., and do not include Ministries of Environment, Defence, or other responding departments.

The donor gap is self-inflicted in that the same donor will fund different agencies for the

²⁵ <http://www.fritzinstitute.org/prgSupplyChain.htm>

²⁶ SCC Emergency Response Depot model prepared by Jeanne-Philippe Monod de Froideville – Booz Allen-Hamilton

same items but with different standards based on the requesting agency. Some gaps are caused by different national measurements, e.g. the US measures on the English system and the EU on the metric system.

HA organisations – The main gap is between the specifications and nomenclature of relief items used. Systems have been set-up, manuals written, staff trained based on agency-specific standards. The gap widens as more agencies are included.

Recommendation

Standards should be developed by as many stakeholders as possible or practicable under the umbrella of an organisation that can be regarded as an honest broker by all participants. These standards should provide enough detailed guidance to add value to the existing systems and also leave enough room for the specifics of the organisations that are supposed to apply them to increase the chance of acceptance. Donors can force the issue by only purchasing the agreed upon standardised item. Whereas significant progress has been made in the standardisation of relief items, the knowledge about and application of standards in processes and procedures are lagging behind (e. g. procurement, tracking, and pipeline models).

3.0 Procurement

Map:

The capacity to purchase significant quantities of appropriate and/or standardised relief items exists in the humanitarian community. There are excellent procedures in place (leading IFRC to be recognised as an HPC) and, given sufficient funding, no gap is evident. The UNHRD can also procure on behalf of DG ECHO-supported agencies and can apply the framework agreements developed for WFP for all official ‘users’ of the UNHRD network in purchasing relief items. Framework agreements are used among the major humanitarian organisations to establish a quick response method for procuring the most common relief items used by the organisation while meeting the accounting requirements of tendering and supplier evaluation. The relief items include vehicles, tents, communication equipment, etc. A bid for the item is tendered and goes through all the same procurement procedures required for any other purchase. The supplier provides a price per unit (can be delivered to one or several locations and the price broken down accordingly) good for a period of two years. The agreement is that if / when the organisation wants to purchase that item, it simply evokes the agreement and the supplier immediately begins servicing the contract. The benefit is the capacity to immediately purchase relief items upon need without stockpiling while meeting all the various procurement documentation requirements. The downside is that suppliers normally include inflation or other costs so that they can maintain the agreement price for the two-year period. Overall, though, this is one of the most efficient systems in the procurement supply chain during emergency operations.

However, there can be a significant gap between the relief commodities that are required in the emergency and those sent. There does not appear to be a gap in the actual procurement, transport, or storage of relief items until the criterion of appropriateness and priority are applied. Due to funding restrictions and/or shortfalls, actual procurement of commodities can only be done after the disaster strikes and donor funds come in or can be reasonably expected. Among the agencies interviewed, program

officers make the decisions as to what the best and most urgent needs are. This is usually not done in conjunction with the logistics officers responsible for transporting and stockpiling the commodities. The opportunity to discover alternate commodities that are, perhaps, better suited for a less expensive transport, more adaptable to stockpiling, or are more acceptable under commercial transport criteria is lost without the interchange between programming and logistics.

The Complex Emergency can include shortfalls in all civil services. The number and amount of goods and services required in this instance are greatly increased while the insecurity from conflict and destroyed infrastructure usually limits the possibility of locally purchasing goods/services at the same quality determined by the Sphere Project²⁷ and/or individual organisations' standards. Sudden Onset can destroy pre-purchased stocks or facilities where local purchases have been contracted. Slow Onset disasters offer the best opportunity for procurement of efficient and effective goods/services due to the luxury of time.

Gap:

Procurement often can only be done when the need arises, which leads to temporary supply shortages, over-reliance on producers and higher prices. The Complex Emergency and Sudden Onset disaster, by definition, do not allow lead times for purchasing all relief items. The indirect gap is that the unpredictability of the disaster also lessens the ability to accurately predict the type and quantity of relief goods/services required.

Member States – No gap exists in MS abilities to procure given the political will and subsequent allocation of funds.

There is a gap in philosophy among donors of whether they will procure relief items during the scenarios or provide funds for a 3-party logistics (3PL) agency to purchase on their behalf, e.g. DG ECHO has designated IFRC as a Humanitarian Procurement Centre and, through the UNHRD, provides WFP with funds to purchase relief items for stockpiling. Another gap is in procurement rules such as the USAID requirement that a certain percentage of goods purchased must be from US suppliers or travel on US flag carriers.

HA organisations – There is no real gap in the ability to make purchases, both externally and locally, among the HA players. There is a potential limitation of funding but no gap in the process or capacity. An indirect gap exists in the ability to procure/lease relief services at the best cost due either by not having forward loaded funds or funds limited to a time-frame shorter than the asset lease norm. For example, all agencies interviewed had purchased shipping services and felt without doubt they would continue to require shipping services in all the of the scenarios. The gap came about in knowing they needed to purchase these services but had to wait until funds were secured before finalising the contracts or only had funding for 6 weeks when they knew the requirement would be for 6 months.

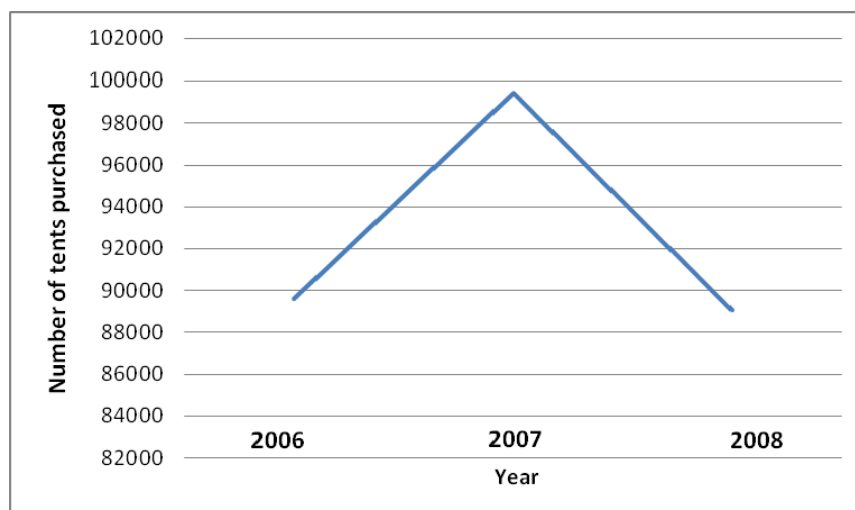
Recommendation:

Humanitarian organisations should track and assess specific items and quantities of basic NFI's. Once completed, donor organisations should be approached to fund a series of

²⁷ <http://www.sphereproject.org/>

workshop between programme and logistics officers that will develop the basic relief item list for different scenarios and determine the minimum use per year figures to be included into core funding rather than project / emergency funding. The Sphere Project provides minimum standards for life-saving relief, including measures of effectiveness for output/performance. These standards should be applied to the life-saving priorities of the clusters and a list of 10-15 of the most commonly used items be developed against the anticipated beneficiary caseload (300K families or 1.5 million individuals) from the scenarios. This list would represent the core stockpiling items and quantities for all the regional hubs. Annex?

Based on historical data a stock of different NFI's could be procured and purchased every year which covers the minimum amount that was used every year. For example, UNHCR purchased 89,620 tents in 2006, 99,439 in 2007, and 89,070 in 2008. The number never falls under 89,000. This example forwards the case that UNHCR could theoretically begin the purchase of 89,000 tents on January 1 of any given year with minimum risk of over-purchasing. If the need for tents exceeds 89,000 then the base amount would simply be augmented.



This approach would require core funding for a minimum amount of certain NFI's, but would enable the organisation to better plan their procurement every year and achieve better prices on the market through longer – term contracts. The procurement can be further refined to follow the scenarios and highlight whether the location is rural or urban, season/climate/weather, has region specific needs, e. g. IFRC in Panama stated female hygiene kits in Latin America were regionally specific items. Funds can be front loaded to provide logistics services up to the minimum amount and for a minimum period of time, e. g. 6 months.

4.0 Humanitarian Transport

Map:

Almost all interview partners expressed the view that transport poses one of the smaller challenges in the overall supply chain, with the main exception being strategic airlift of goods/assets from the stockpile/warehouse into the affected country or region. **The global pool of air, sea and land transport capacities, both commercially as well as government owned, is sufficient to cover for all transport needs of the global**

humanitarian supply chain. The only restraining factor is the availability of funds to contract these assets. In the combined collective memory of all interview partners and the study team, the only occurrence of a temporary (48 – 72 hrs) shortage in commercial, strategic airlift capacities from Europe to Central America after Hurricane “Mitch” in 1998. Reverting to governmentally owned assets could have solved the bottleneck, but was not considered by HA organisations due to the significantly higher costs.

In order to provide an understanding of the scale of ‘hard’ assets available in the humanitarian community, the below table indicates the assets ‘owned’ or otherwise available to the five main humanitarian organisations and identifies the main co-ordination mechanism for their use. Note that the information in the table was derived from the interviews with the players mentioned and is representative only of the magnitude of the humanitarian community and not as a precise listing of assets.

	NO. of ASSETS	TYPE	ORGANISATION / CUSTODIAN	COORDINATION MECHANISM
LAND	73,000+	Vehicles – passenger, light-duty, and lorry	35 humanitarian organisations (IFRC-1,018; UNHCR-6,990; IOM-1,000; WFP-1,000; ICRC–2,887, etc.)	Fleet Forum; UNJLC/Logistics Cluster
AIR	210+	Fixed and rotary wing	WFP, ICRC, IFRC, UNHCR, UNICEF, IOM	UNHAS; UNJLC/Logistics Cluster
SEA	400+	Liner, charter vessels	WFP, UNHCR, UNICEF, IOM, IFRC, ICRC	UNJLC/Logistics Cluster
STOCKPILING	46,400m2 (UNHRD) 7,500m2 (RLU) NB: Both have access within current facilities to expand if/as needed. 104,774m2 (ICRC)	(5) UNHRD has 10,000m2 (5K inside; 5K outside) (3) RLU has 2,000-3,000 sq. meters All storage facilities.	WFP, IFRC, ICRC	UNHRD, RLU; UNJLC/Logistics Cluster

It should also be noted that the agencies above, as well as other humanitarian players, have **stand-by arrangements** with transport suppliers that allow them to augment and / or access assets as needed under a pre-emergency contract (price, conditions, parameters, etc.). Some organisations have other means of rapidly accessing hard assets when needed. For example, IFRC does not have stand-by arrangement for aircraft or ships but has pre-identified suppliers. IOM has local arrangements for hiring additional ships.

The arrangements in this phase of the supply chain range from tendering out air transport

for every single aircraft²⁸ through longer term contracts all the way to complete third party logistics (3PL)²⁹. **All interviewed partners agreed that they prefer air transport carried out by civilian (commercial) aircraft over the use of military aircraft for a handful of reasons (cost effectiveness, availability, ease of organisation, etc.). However, some of the major international organisations and UN agencies do have MOU's with political/military organisations to have access if and when required and available.** One of the major arguments for the restricted use of military/civil defence assets (MCDA) is that the “brokering” international co-ordination bodies, (most prominently the EU’s MS and Community Civil Protection Mechanism (MIC), NATO’s Euro-Atlantic Disaster Response Coordination Centre (EADRCC) and UN OCHA’s Civil Military Co-ordination Section), have to request the assets with their respective member states and depend on their willingness and capabilities to provide these air assets. National relief organisations naturally often work with “their” military³⁰. All of the humanitarian organisations apply, to the extent possible, the “Oslo Guidelines”³¹ and the “Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies (2003)”, being aware that the provision that MCDA should be used as a “last resort” many times entails using the (transport) asset first (in order to immediately access a caseload).

Most of the agencies interviewed have used military assets at some time in the last five years. The progression of using military assets can be reflected in a simple graph (below) where the scenarios move from complex emergency to sudden-onset to slow onset disaster. The discussion of using military assets in humanitarian operations comes down to time (immediate response) vs. preferred / available / allowed assets (last resort). The model below highlights the 'last resort' concept. For example, military (transport) activity is high during conflict, i.e. a complex emergency, and humanitarian activity can be very low due to insecurity, fighting, or lack of donor support. With the combination of activity level and immediate need for humanitarian support, one can see clearly how using military (transport) assets as a 'last resort' may require using them during the first response. In the Slow Onset example, however, time is not a limiting factor for the response and organisations can more easily look to other means than the use of military assets. This does not infer that military assets are never used in other disaster types or that humanitarians are not active in complex emergencies.

Lessons learned from the Pakistan earthquake 2005 indicated that “Pakistan did not favour military, civilian, or commercial providers; what was important was the speed with which the appropriate assets could become operational in Pakistan. The Government of Pakistan observed that foreign military assets sometimes failed to accept locally appropriate working practice or to carry out tasks in a timely manner consistent with local standards and with respect for their culture and social structures.”³² During the study interviews with HA representatives who had actually worked during the earthquake, the impression was that HA 'hard' assets were never the issue; it was funding. The UNHCR High Commissioner stated, "UNHCR is extremely grateful to the NATO countries for their generous in-kind contributions. With *limited funding* from donors, this support is absolutely crucial for us. Without it, we simply would not have had enough funds to get these vital

28

France

29

Denmark

30

Norway

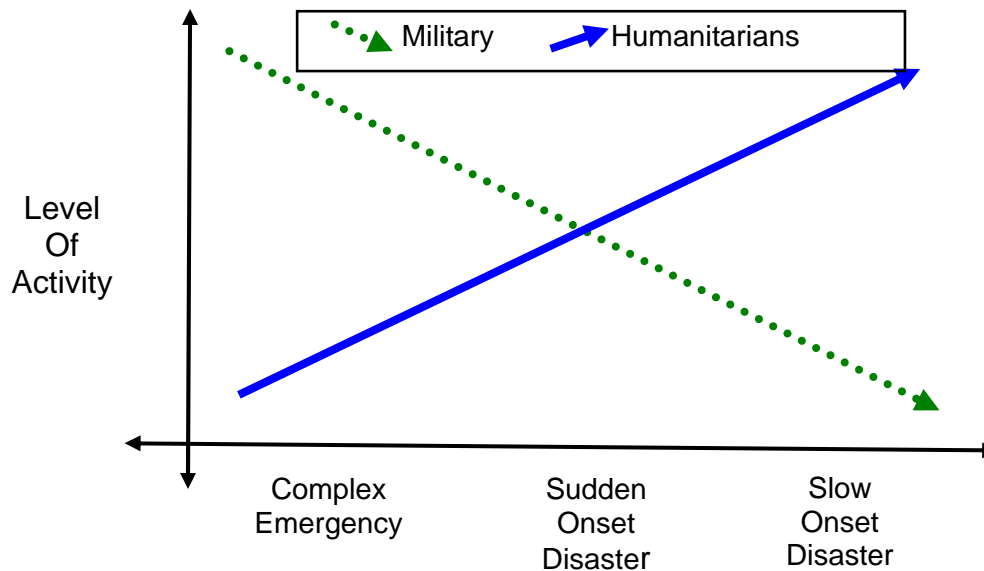
31

Officially: “Guidelines on the Use of Foreign Military and Civil Defence Assets in Disaster Relief” (1994, updated 2006)

32

<http://books.sipri.org/files/misc/FMA/SIPRI08FMAanD.pdf>

supplies to Pakistan."³³ **After review of the footnoted documents and given the impressions of the HA workers present during the response, it is the conclusion of this study's authors that military assets were not required per se in Pakistan but were used for political and cost-efficiency reasons.** This is consistent also with the findings of this study that there is no gap in 'hard' assets among the HA players but, rather the issue is one of funding and co-ordination.



Gap: There is need for awareness among both donors and relief agencies that they must compare the appropriate measurements or functions, within the same set of parameters, to develop a proper analysis of effectiveness and efficiency. Most evaluations, normally coming six months or more after the disaster response began, fail to properly assess the cost-efficiency and effectiveness of the various players and assets because they do not place the decisions and costs against the historical data (what was known at the time) and humanitarian objectives (saving lives). Similarly, these evaluations only analyse one or more agencies' transport response without comparisons to every asset used.

Member States – MS have a multitude of transport possibilities available to them in the event of a disaster. There is no gap in the physical assets available. **There is a gap in understanding 'last resort' and first response.** It is counter-intuitive but the use of the military's assets as a last resort can actually require them to be used first as a life-saving means. A gap exists also with MS support and the criteria for 'end-state' when the support is stopped. MS support does not necessarily follow the humanitarian needs for the life of the requirement. A gap can exist when a MS suspends or stops support before a competent replacement agency can take over.

The biggest gap in transport for the donor is the time and measurement for evaluating transport efficiency and the related benefits of the asset. It is difficult for a donor to fund an aircraft for a year when the relief operation is designated as 3 months, even if that operation continues for years in 3-6 month increments, e.g. Lifeline Sudan in

³³ <http://www.unhcr.org/cgi-bin/texis/vtx/earthquake?page=news&id=436a4d154>

1989. **The gap between humanitarian and commercial performance indicators for measuring transport performance is yet to be completely identified but exists.** For example, a small passenger aircraft supplied to UN Humanitarian Air Service in 2007 for Darfur and greater Sudan remained based out of Khartoum; however, donors complained that the aircraft was not used every day and many times when it was used it flew with only a few passengers. For commercial aircrafts, the number of flights vs. number of empty seats is a key performance indicator (KPI); however, in the humanitarian world, the one flight per week to Juba paid UN and NGO staff that were supporting thousands of beneficiaries. World Vision claimed they remained, as did many NGOs working in the area, in Darfur only because they knew the plane was stationed in Khartoum and could be used for evacuations.

HA organisations – **Gaps do not exist in the quantity of transportation assets for any of the scenarios but might in the ability to access them due to funding limitations, the duration of their use, and/or the flexibility they have for scheduling.** Due to strict neutrality mandates, ICRC, IFRC, Medecins Sans Frontiers (MSF), among others, cannot take full advantage of military assets. Depending on the nature of the Complex Emergency, this may extend to MS assets as well, if the MS has aligned itself with side or the other. Competition among relief providers, MS, private ventures, etc. can cause a gap in the supply of transport services if there is no co-ordination among the providers.

Recommendation:

There currently exists a Logistics Cluster that is a forum for co-ordinating the logistics needs and activities in each of the scenarios. The UN Cluster System³⁴ was developed in 2005 and has been deployed for three years. There are challenges that need to be worked out; however, if this co-ordination mechanism did not exist one would have to be created. Therefore, **this mechanism should be supported and utilised as the main co-ordination forum for operational logistics.** In order to not be overwhelmed by wealthier or larger organisations, smaller NGOs participate in a Supply Chain Consortium similar to the one being established by World Vision, CARE, CRS, and Mercy Corps in the UK. MS and donors should make themselves available as required to familiarise themselves with the humanitarian logistics system and topics. **The more organisations use this forum, the more effective it will become as it evolves into a more inclusive mechanism.**

As mentioned previously in this report, **KPIs need to be developed that encompass the entire humanitarian transport field and allow for comparisons across all players.** In the commercial business sector, a KPI is a quantifiable measurement for determining whether or not a business (or business process) is successful. Under its good donorship policy donors should contribute to educate consultants and programming officers as to the most appropriate points for comparison and to ensure initial objectives, e.g. immediate response vs. cheapest response to be factored into the evaluation. Fritz Institute has recently completed a version of humanitarian KPIs but have yet to publish them. Once accessible, these should be the foundation for logistics review and acceptance by humanitarian logisticians and education to the MS and donor representatives involved in evaluating supply chain performance.

Another suggestion is the development of “scorecards”. According to the Logistics

³⁴ <http://www.reliefweb.int/humanitarianreform/>

Management website³⁵, there are three levels of scorecard for commercial companies:

- Global Logistics – a high-level performance evaluation tool that helps estimate logistics performance from the view point of the CEO or manager of the large international logistics unit;
- Supply Chain – a middle-level performance tool that helps to evaluate the performance of the transportation unit and how it is integrated in other business processes;
- Transportation – a low-level scorecard specifically focused on transportation problems from the view point of the transportation unit of a small company which provides more metrics to evaluate quality aspects of some specific transportation process.

It is imperative that these commercial concepts be adapted, where necessary, and fully reflect the realities and differences of the HA transportation and logistics world from the commercial world. In 2006, as part of her Master of Engineering in Logistics, Ms. Anne L. Davidson³⁶ writes that there are three principles of the commercial and US military sectors that are most applicable to the HA sector:

- **Align metrics to the organization’s core strategy (Lambert, 2001).** If a metric is not critical to fulfilling an organization’s core strategy, it should not be included on the scorecard. There is a tendency when designing performance measurement systems that “more is better,” but if too many metrics are selected, the scorecard can become too cluttered, preventing individuals from truly gauging performance.
- **Understand the dynamics of how performance is driven (Caplice & Sheffi, 1994).** The *faster* that goods are delivered to beneficiaries after a disaster, the less likely these goods are *accurately* meeting the needs of the beneficiaries, and the more likely the operation will be *costly*. The organization responding must decide in advance how it wants to align itself along the dimensions of speed, accuracy, and cost.
- **Review the metrics periodically as performance improves (Meyer, 2005).** The goal of implementing metrics is to improve performance over time, and as goals are achieved, targets must be re-evaluated and revised as necessary to ensure continuous improvement in the organization’s supply chain.

The UK’s Department for Transportation, through the Freight Best Practices programme³⁷ has developed KPIs in the commercial Food Supply Chain sector. The table below takes a sample of these KPIs and aligns them with examples of how the HA sector might develop the metrics. The differences take into account the three principles highlighted above. It should be noted, however, that as it is beyond the scope of this study to develop KPIs for the HA community, **the Fritz Institute’s publication on Humanitarian Logistics KPIs, when published, should be considered a more exhaustive work reflecting a broader representation of the HA logistics community.**

³⁵ <http://www.logistics-management-kpi.com/tag/scorecard>

³⁶ Key Performance Indicators in Humanitarian Logistics, 2006, Davidson

³⁷ <http://www.freightbestpractice.org.uk/>

DESCRIPTION	COMMERCIAL KPI	HA POSSIBLE KPI
Vehicle Fill	Measured by payload weight, pallet numbers and average pallet height.	Measure planned capacity vs. actual capacity of vehicle for road conditions for delivery.
Empty Running	Measurement of the distance the vehicle travelled empty during its commission.	Assurance that the vehicle returns empty from distribution (to retain neutrality)
Time Utilisation:	Measurement of how the time was spent at each leg of the delivery. <ul style="list-style-type: none"> • running on the road; • being loaded/unloaded; • pre-loaded awaiting departure; • waiting loading/unloading; • undergoing maintenance/repair; • driver daily rest period; • idle (i.e. empty and stationary) 	Measurement of on-time departure, arrival and loss/good condition of commodity of land (transit points, Extended DeliveryPoint Final Delivery Point) and sea transport in order to show the contractor performance and timeliness of dispatches, arrivals and quality of commodities delivered.
Deviations from Schedule:	Breakdown of time costs of: <ul style="list-style-type: none"> • Problems at supplier and customer premises; • Internal company actions; • Traffic congestion; • Vehicle breakdown. 	Measure of contractor performance: <ul style="list-style-type: none"> • Timely uplift; • Adherence to transit time; • Losses incurred; • Time, quality, quantity compliance; • Documentation in order; • Timely paid invoices.

5.0 Storage and Warehousing

Map:

Currently, there are not sufficient stockpiling facilities to respond efficiently to the scenarios of the study³⁸. Much has been done in the last 2-3 years with the UN Humanitarian Response Depot's (UNHRD-WFP) and the Regional Logistics Units (RLU-IFRC), but there are still outstanding issues. There is a need to continue to support both agencies logistics hubs as they provide alternatives in the event of a large disaster in one area and/or one hub is incapacitated for whatever reason. DG ECHO has been a strong supporter of the UNHRD network development, but the structures have not been completed as originally planned. WFP is moving as fast as they can to get the Panama and Malaysia permanent facilities built and operational. **Humanitarian stockpiling is a valuable mechanism and a slight expansion of current facilities would close the gap on capacity.**

Italy, through the Italian Co-operation, has been very supportive for many years of the UNHRD and the development of the current network. They are looking at expanding the support outside Italy. DG ECHO has provided funds for IFRC and for the development of

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<http://ochaonline.un.org/AboutOCHA/Organigramme/EmergencyServicesBranchESB/LogisticsSupportUnit/EmergencyReliefStocks/InternationalEmergencyStockpiles/tabid/2020/language/en-US/Default.aspx>

the UNHRD network and continues to provide funding to WFP who handles the procurement and warehousing of the items until dispatched. Irish Aid, on the other hand, maintains ownership but hands over control to OCHA. DFID is looking at the UNHRD's seriously as a stockpiling option. USAID feels that their procurement mechanism is sufficient enough not to warrant any stockpiling through UNHRD or the RLUs. Two main differences between the UNHRD and RLU concepts are: restrictions of the Red Cross Movement regarding branding and use of military assets; and, the UNHRD provides warehouse space for 'free' to the humanitarian community and donors. Both facilities, however, provide 'pass-through' capability for purchases meaning that an authorised user of the facility may benefit from the framework agreement of the facility's managing organisation, e.g. WFP or IFRC.

World Vision and CRS commissioned a study to develop a list of the most common relief items used in order to identify the most appropriate items for stockpiling. This was an excellent concept but in practice provided very limited usefulness. The consultants came up with a list of common relief items³⁹ but there is no consensus in the NGO community as to the specifications or even the terminology of these items. The idea, however, should not be dismissed. **DFID has, in essence, only five different NFI's in stock⁴⁰**, whereas the ICRC has several thousand references. **The idea that these items can be standardised in order to facilitate loans, exchanges, borrowings, etc. is being incorporated into the UNHRD network software development programme.** It can be stated that there is again a very wide range on how the different organisations organise their stockpiling / warehousing concepts: **while many national, international and non-governmental organisations support the HRD concept fully or partially, some retain their own systems of national stockpiles and warehouses, others rely on a system of smaller warehouses in all countries where they are already running operations.** Most of the organisations are open to other members of their constituency to co-operate on stockpiles (i. e. enable them to draw on common relief items either against payment or replenishment). **The concept of unmarked, unbranded stocks is widely accepted** (only one exception was mentioned) in order to allow for mutual usage and to save on purchase costs (marked stocks are typically 10 – 15 % more expensive than unmarked ones).

Another aspect of stockpiling capacity is the use of public/private entities. The potential of the private sector, through both existing and possible arrangements, is exemplified by both UNHRD and RLU systems cooperating with commercial entities for various activities. WFP utilises TNT warehouses in Ghana and United Postal Service (UPS) warehouses in Panama. IFRC rents warehouse space and utilises forwarding/customs services from Integrated Warehouse SDN BHD in Malaysia. DHL, Deutsche Post, deems its core competencies as Airport operations, cargo handling, flight operations, warehousing, and distribution and, specifically in disaster relief, states that "DHL can use its experience, network and employees' talents to support humanitarian missions and reduce bottlenecks at airports receiving huge quantities of relief goods in the aftermath of major natural disasters."⁴¹ In fact, "with backing from the World Economic Forum and following on from TNT's emergency response commitments with WFP, TNT has joined forces with Agility Logistics Solutions Ltd (Agility) and UPS to form the Logistics Emergency Team (LET), which aims to support the humanitarian sector with emergency

³⁹ List available with study team

⁴⁰ Vehicles (+ communications equipment) at warehouse in UK, blankets, jerry cans, plastic sheeting and water storage containers at warehouse in UAE (as of Oct 2008).

⁴¹ DHL Disaster Response Teams briefing December 2008

response logistics to large-scale natural disasters⁴². In 2008, LET assisted WFP in Myanmar and Haiti. Large UN / NGO organisations, as well as other HA organisations that may not have the financial capacity to hire their own logistics staff throughout the entire supply chain, can benefit from private company services such as sorting unsolicited goods, stacking, inventory management systems, and loading / re-loading. In addition, organisations interviewed also stated that when they deployed staff in support of a humanitarian crisis, they were self-sufficient in clothing, equipment and operational supplies.

There may be, however, possible downsides to using private entity arrangements, such as the lack of knowledge of specific humanitarian process, systems, procedures; limited ability to travel outside agreed upon location (e.g. airport staging warehouse); possible conflicts of neutrality (if the private company has been or is seen as siding with one of the combatants); and the restriction of natural disasters only (see DHL and LET comments). One of the HA interviewees, who asked not to be named, mentioned that there was a feeling of potential competition from the private companies that could affect the HA community negatively if the HA organisations begin competing with the private companies for donor funds and resources. On the Supply Chain Asia website it has been reported that in early March, LET held a joint training programme for the Logistics Emergency Teams in Singapore with over twenty logistics specialists representing the three LET companies⁴³. The article does not mention the participation of HA participants or facilitators. This study did pursue whether or not this is a valid concern as justification data on the matter was not available. It can be concluded, however, that **many humanitarians believe that humanitarian work should be left to professional humanitarians and not be commercialised for private or profit-motivated purposes.**

Gap:

Logistics hubs and stockpiling facilities for the humanitarian community exist and continue to be developed so as to reach the capacity for responding to this study's scenarios. They are not there yet. The support of both IFRC and WFP provides an alternative to stockpiling in the event that one of these agencies cannot, for whatever reason, perform its warehouse duties. More time is needed for the logistics centres to either show their value or their failure. The analysis of success for a logistics centre cannot be gauged over a period of only one year. **A gap, mentioned previously in this study, is the type, quantity, and standardisation of relief items held in stockpiles. The location of the stockpiling is much less of an issue than the actual items held.** There is no one standard policy among donors / member states as to the ownership of stockpiled commodities. In addition, the reporting on various activities of the stockpiling facilities has yet to be standardised in a manner sufficient for all of the users. The RLU reporting is thorough but has a limited number of users. The UNHRD is making efforts to address the concerns of its users but will not be able to meet every requirement.

Member States – Gaps exist in the philosophy of some MS of stockpiling at home or in one of the humanitarian facilities. The Irish government only recently closed down a

⁴² TNT Corporate Responsibility Report 2008, pg. 82

⁴³ www.supplychainasia.com/industry-news/humanitarian-news-agility-tnt-and-ups-hold-joint-training-program-for-disaster-response.html

stockpiling facility outside Dublin while Irish Aid was a major support of the UNHRD both as a supporter of the Ghana facility construction and funding the purchases of relief items through UN Office of the Coordination of Humanitarian Affairs (OCHA).

There is no consensus among donors as to whether or not they will support humanitarian stockpiling. DG ECHO has supported the UNHRD and RLU facilities, as well as providing funds to WFP to purchase relief items to warehouse. DFID and USAID, on the other hand, feel that they have the mechanisms in place to rapidly procure and transport relief items to the disaster location and do not support stockpiling. At the time of writing this report, DFID was investigating the UNHRD possibility.

HA organisations – **There is a gap in NGOs and other agencies wanting to stockpile their goods and not wanting to use a WFP-run UNHRD.** The World Vision/CRS-commission report referred to above made it clear that as long as the UNHRD offered free warehouse space, there was no better alternative. **The gap is born out of the lack of control users have of whom else uses the UNHRD, e.g. ECOWAS is seen as a political entity with questionable neutrality issues but UNHRD is considering allowing them to be an authorised user of the Ghana facility.**

Another gap in stockpiling is the lack of **staging facilities and forward bases.** Mostly this refers to agreements in potential staging countries, e.g. Thailand during the Myanmar floods, 2008. The exact locations of the forward bases are being discussed internally in IFRC and WFP/UNHRD. The most effective and efficient situation for meeting the demands of the scenarios would be one where smaller, regional warehouses were established with minimum, standardised stock and staging areas under contract for immediate use as required.

Recommendation:

The RLU and UNHRD networks should be further supported in their development, while encouraging the respective managers to meet on a regular basis. A re-evaluation should be done in two years to determine whether or not the facilities have actually met the criteria and have the desired operational capacity. **In order to increase the interoperability between the existing/evolving systems, standardisation of NFI's is a precondition and should be supported and developed.** Support should definitely focus on the development of software and other mechanisms that facilitate the information-sharing aspect of stockpiling while having the ability to generate activity reports for current and potential donors to compare the advantages of the facilities. Further expansion of the stockpiling facilities should be investigated based on regionally-specific or unique requirements, e.g. water-able vehicles in the Caribbean. Buying into an existing international system (UNHRD, LRU, etc.) might be worthwhile exploring also by MS, political and organisational factors permitting. **Continued and new relationships with private entities should be considered; however, these agreements should not replace or diminish the humanitarian's own capacity to respond.**

6.0 Tracking and Customs Clearance

For a country that has undergone a disaster, the ability to support international humanitarian assistance can be a confusing or, at worst, a debilitating problem. The IFRC's International Disaster Response Laws, Rules, and Principles (IDRL) Programme began in 2001 in order to explore the role of law in the response to disasters, particularly

international disaster relief. In 2003, the 28th International Conference of the Red Cross and Red Crescent welcomed the IDRL Programme's work, and called on the Federation and National Red Cross and Red Crescent societies to identify and disseminate key legal instruments, lead cooperative efforts to identify gap areas and make recommendations to address them. In 2007, on the basis of the Federation's recommendation, the 30th International Conference adopted a new set of "Guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance." It also invited the Federation and National Societies to continue their research and advocacy efforts as well as the development of new tools and models for the improvement of legal preparedness for disasters.⁴⁴ The IDRL provides voluntary guidelines that could support an international effort such as those provided in the disaster examples of the study.

6.1 Tracking and Tracking Systems

Map:

Existing tracking systems are sufficient up to the delivery of the relief items to the distributing agency. At this point, the control of the relief items shifts from the logistics personnel to the programming staff of the implementing partners. This change in ownership, as well as agency, makes for difficulties in tracking accurately and timely down to the 'last mile'. Technological means of tracking have been developed in IFRC through work with the Fritz Institute. Web-based tracking systems such as Aid Matrix have some qualities that are beneficial to the humanitarian community and others that are only beneficial to the donor. Pan-American health Organisation (PAHO) has developed a basic, simple database for tracking commodities. All of these systems were developed for the right reasons, but none easily adapts to the specific needs of each agency. IFRC has many different national societies to support, each with its own, local tracking systems. The UN agencies have several NGO implementing partners for distribution of relief items, none of which use the exact same system. **Even within the same organisation there can be different tracking systems, some of which do not 'speak' to each other.**

Gap:

The changing world of technology and the wide array of the various agency requirements can be overwhelming. The current system is much improved over 5-10 years ago but it is not completely there yet and, unfortunately, does not appear that it will ever get there.

Recommendation:

To support individual agency's efforts at developing a tracking system for their commodities through thematic funding and, certainly the UNHRD/RLU systems must be accurate, timely, and useful. However, **it is recommended not expend major resources to develop individual agencies' systems that are ever-changing and unlikely to be universal in scope or reach. Instead, the focus should be on the main stockpiling facilities of RLU and UNHRD systems that have a broader reach among agencies and can be developed specific to specific needs and requirements.**

⁴⁴ <http://www.ifrc.org/what/disasters/idrl/programme/intro.asp>

6.2 Customs Clearance

Map:

Customs Clearance is accomplished most by local agents and requires a solid relationship between agencies and individual logistics officers and customs agents.

In addition, especially with vehicles, there is a time limit for the importation, after which the asset must be registered if it is to remain in the country and appropriate duties paid. More and more national organisations outsource customs clearance to their transport providers and freight forwarders.

This is probably the most varied functional area in considering the scenarios. During a Complex Emergency, there may not be any customs officials at all or the customs officials that exist are not part of any government but part of a warlord or clan. In Afghanistan (2001), some NGOs crossed over from Pakistan with vehicles that would have, under normal circumstances, been required to meet customs clearance requirements. There were no border or custom officials on the Afghan side. When the NGOs tried to return to Pakistan in 2004, the Afghan government had placed officials at the border who were requiring paperwork and other documents causing serious delays and a lot of frustration on both sides. During the Sudden Onset disaster, cross-border operations and/or emergency and temporary customs requirements may be activated. Jealousy from neighbouring country customs officials, corruption, and the high profits of contraband can cause disruptions in getting relief goods cleared in a timely manner. During a Slow Onset disaster, customs clearances are usually handled easily with existing relationships through freight forwarders, e.g. Panalpina⁴⁵, or government counterparts. **OCHA's "Customs contacts and procedures register" is one of the better maintained and more user-friendly parts of the "Central Register" and publicly accessible.**

Gap:

There is a huge gap in understanding by non-logisticians of customs clearance. A main misunderstanding is when countries in disaster that declare relief items duty-free do not mean 'process-free' or forever. The paperwork still has to be moved around the point of entry and customs houses whether there is a duty or not.

Member States – MS may have bi-lateral or regional co-operation agreements that allow for customs clearances of relief items. The military may have the Oslo Guidelines that support the use of their assets; however, a gap may exist if these official mechanisms do not exist.

There is no gap for donors *per se*. these would be transferred to the recipient agency. One gap noted during the tsunami was a donor (name requested to be withheld) that asked WFP to act as consignee for all relief items. This would have put an unfair, and illegal, burden on WFP. Similar incidents were related by IFRC. **The gap seems to be with the understanding of custom clearances rules and procedures among some donor representatives.**

⁴⁵ <http://www.panalpina.com/www/global/en/home.html>

HA organisations – **There is large gap in understanding the fundamentals of customs clearances among HA personnel.** Many emergency humanitarian staff are consultants who are brought in due to a special skill set where customs issues are not a pre-requisite.

Recommendation:

A simple series of workshops highlighting customs issues such as forwarding agents, documentation, authorities and roles/responsibilities, etc. would be useful to all organisations operating in humanitarian response. A protocol for customs clearance for each of the scenario situations could be developed and a checklist provided to all players who are in need of the customs services.

7.0 Distribution and Monitoring

Map:

The “last mile” of distribution is the hardest to track and control by the main humanitarian players as this is usually not under their direct supervision. **Only a few organisations (e. g. UNHCR, ICRC) have sufficient field personnel to physically monitor the final distribution of relief items to the beneficiaries.** National societies, local officials, implementing partners all take the relief items from the final distribution point and deliver them into the hands of the beneficiaries. These final distributions are many times made with no modern conveniences – electricity, technology, etc. - and so the quality and timing of the final reports are not always professional quality. In addition, the closer distributing agencies get to beneficiaries the more spread out the distribution sites are. In the case of IFRC in Myanmar, the reports received from the national society were accurate and well-done, but were not received for almost one month after the distributions. **Other interview partners informed that the return of distribution reports hardly ever reaches 10%.** Amongst some of the interviewees, the debate over what constitutes a 'distribution' came up and all the complications of determining whether or not, during the immediate, life-saving period of the emergency, the effort is worth the results. UN agencies⁴⁶ and MS report occasionally lower than 10% reporting on point of usage distribution in a reasonable timeframe.

Gap:

As the front-end logistics, transport and stockpiling improves the distribution mechanisms will follow; they are, in part, determined by the logistical means by which they were transported to the distribution point. **A lack of core logistics staff numbers also inhibits the ability of agencies to properly train and monitor logistics activities to the last point.**

Member States – No gap was identified for MS as their efforts were internally tracked, but for donors, there is a gap in the requirement for distribution reports from the field vs. when the reports are prepared. In the Complex Emergency, distribution reports may not be accurate or are sporadic as security permits. The other two disasters do not have gaps for

⁴⁶ OCHA

donors other than the delay in getting reports back from the field.

HA organisations – Most of the UN agencies are not implementing agencies. They do not perform the actual execution of distributing the relief supplies they have received from donors. The distributions are normally handled through NGOs having agreements with the UN agencies. IFRC has similar arrangements with the National Societies. Other times, especially in the Complex Emergency and Sudden Onset, the distribution can be carried out by a local agency or authority. **Gaps can exist due to a lack of capacity to monitor and/or perform record-keeping or can be simply a delayed report.** A gap also exists in the lack of authority of the responsible agency over the implementing partner in meeting deadlines or expected monitoring protocols. In response to the multiple disaster scenario, the **HA representatives interviewed stated they would not have enough trained and qualified personnel to fully monitor down to the 'last mile'.**

Recommendation:

In addition to the previous recommendations for additional core logistics personnel and commodity tracking software, the 'sharing' of distribution and monitoring staff at the local level would be much more cost-effective than each agency providing its own staff. Possible links for monitoring through the Cluster system can be explored as the monitoring for evaluation purposes should be over the whole response and not just isolated parts of it. New technologies and broader cellular/satellite coverage can provide opportunities to send and receive monitoring information to/from anywhere in the world in 'real time'. Simple to use, sturdy, low-cost, low-tech and compatible systems should be explored (e. g. UNICEF testing a short-message-service (SMS) based system).

8.0 External Logistics Co-ordination and Information Management

8.1 International Co-ordination

Map:

The best known international co-ordination body in the logistics field is definitely the **Logistics Cluster** with WFP as the cluster lead. Many of the interview partners in this study expressed a wide range of opinions (from 100% support to a highly sceptical view) about the Logistics Cluster. Many organisations deem it too early in the process of establishing the cluster system to give their final opinion on the efficiency and effectiveness of the system. The most quoted critical opinions about the cluster system in general, and the Logistics Cluster in particular, was the ongoing discussion whether the main “operational” agencies / organisations should at the same time be the cluster lead (co-ordination and implementation in one hand). Additionally, the point was made that donor funding for logistics projects is increasingly channelled through the Logistics Cluster leaving less resources for organisations that do not participate in the UN cluster system or for organisations which previously had been funded directly⁴⁷.

Many national organisations informed about their policy to co-ordinate their national logistics efforts with others through the UN cluster system (when activated) at field level. Some of the interview partners, both on national and international level, were sceptical

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about the transformation and disappearance of the Joint Logistics Centre into the Logistics Cluster as of January 2009.

Besides the Logistics Cluster there are several smaller co-ordination bodies consisting of organisations with similar logistical requirements (e.g. the Supply Chain Consortium formed by CARE International, World Vision, CRS and Mercy Corps). These consortia can be used as single voices within the Logistics Cluster.

Gap:

There appears to be no gap in the number of international co-ordination channels provided for the streamlining of logistics activities in all phases of disaster management in general and the supply chain in particular. There is, however, a large gap in the number of agencies utilising these mechanisms for logistics purposes that could potentially create a lopsided logistics response under the scenarios. In addition, the reliance of the Logistics Cluster on the commodity/service requirements of the other Clusters identifies another gap that is not being addressed by any of the interviewees.

Member States – A gap exists in the MS co-ordination of various Ministries' activities and efforts. Going alone or without regard to what others are doing in the relief efforts could cause a gap or redundancy in coverage.

Gaps are evident when donors do not co-ordinate their efforts and/or when a single donor provides support to competing entities. For example, if UNHCR is providing air services to a refugee camp and CARE also receives funding for air services, then most likely the two agencies will compete for contracts, air services (apron space, air traffic control, overnight facilitates, etc.), and passengers.

HA organisations – **One of the few, main reasons for there being a gap in transportation assets in the scenarios is if the HA community does not co-ordinate its efforts by prioritising the relief goods to be transported and locations for delivery, including goods coming into the country as well as internal storage and movement.** There are many reasons given for not coordinating – ego, competition, stubbornness, visibility, conflicting mandates, etc. – but this gap is paramount to the inefficient and ineffective provision of relief. The HA community literally cannot afford **not** to co-ordinate their logistics activities.

Recommendation:

Whilst the cluster system (including the Logistics Cluster) needs continued support to reach its full operability, organisations that cannot or choose not to participate should not be negatively impacted. The largest and main players in logistics do participate in one of more co-ordination forum; however logistics at the implementation level and outside the initial response include many organisations that do not. **The Logistics Cluster as one of the service clusters (support to all other clusters and sectors) should co-ordinate its activities early with the other clusters and at the local level so as not to develop to be an end in itself. Co-ordination does not just begin when the disaster strikes. To be most effective, it must be inclusive and begin in the pre-disaster phase where agencies have the luxury of time and staff to look beyond the urgent requirements of the scenarios.**

8.2 Information Management

Map:

Similar to the situation in tracking and co-ordination systems, enough (maybe too many) different information management (IM) tools exist in the humanitarian logistics environment. The problem with many of them appears to be two-fold: 1) the information value for the user is only as high as the quality of the input into the IM system or tool, and 2) organisations appear to have problems to accept other organisations IM tools. A prominent example is UN OCHA's "Central Register". Whereas certain parts of the Central Register are permanently developed and updated (e. g. Stockpiles for Emergencies "Who has what where"), others were actually never populated or are not being updated. Like many other IM systems and databases, the quality of humanitarian logistics information management systems depends to a large extent on the frequency and accuracy of input and their user-friendliness. There are two other systems of note. **Helios** was developed by the Fritz Institute as an off-the-shelf solution for those organisations who do not need or can afford the development of their own software. **AidMatrix** is a web-based database that allows potential donors and response agencies to come together on specific needs. Logistically, this type of facility does not work well as transportation and other assets are required on an immediate and ad hoc basis. The lag times in AidMatrix, as well as the cost of air transportation for immediate needs, make it impractical for the large emergency logistics players' response on a scale the size of the multi-disaster scenarios.

Gap:

There is no real gap in the existence of IM tools for humanitarian supply chain and logistics; however, users will have to find their own mix of information sources as no all – encompassing system exists and also is not envisaged. Some sectoral gaps have been mentioned in the course of the interviews e. g. a supplier database for relief items and services with a grading including the reliability of producers and vendors.

Member States – No gap exists, but donors, at times, fund competing services and/or systems.

HA organisations – The gap here is in using what is available and exists where possible instead of inventing and re-inventing new systems. **The main gap is in the inability of various systems to read each other and/or provide any useful output or management tools.**

Recommendation:

Focus should be put on the **improvement of existing system rather than on the development of new ones and a specialised gap analysis** could assess the specialised needs in information management of logistics organisations and providers.

ANNEXES

1.0 *Technical Specifications*

OVERALL OBJECTIVE

DG ECHO's overriding mandate is to finance the saving and preserving of lives and the reduction of suffering during emergencies and their immediate aftermath and natural disasters.

Council Resolution (EC) 1257/96 – Article 2: The principal objectives of the humanitarian aid operations shall be:

To save and preserve life during emergencies and their immediate aftermath and natural disasters that have entailed major loss of life, physical, psychological or social suffering or material damage;

To provide the necessary assistance and relief to people affected by longer-lasting crises arising, in particular, from outbreaks of fighting or wars, producing the same effects as those described in sub-paragraph (a), especially where their own governments prove unstable to help or there is a vacuum of power;

To help finance the transport of aid and efforts to ensure that it is accessible to those for whom it is intended, by all logistical means available, and by protecting humanitarian goods and personnel, but excluding operations with defence implications;

To carry out short-term rehabilitation and reconstruction work, especially on infrastructure and equipment, in close association with local structures, with a view to facilitating the arrival of relief, preventing the impact of the crisis from worsening and starting to help those affected regain a minimum level of self-sufficiency, taking long-term development objectives into account where possible;

To cope with the consequences of population movements (refugees, displaced people, and returnees) caused by natural and man-made disasters and carry out schemes to assist repatriation to the country of origin and resettlement there when the conditions laid down in current international agreements are in place.

The prime objectives of the study are:

To identify potential gaps in the international emergency response capacity in terms of transport, logistics and stockpiling through a comparison of existing and planned capacities with a number of baseline disaster scenarios;

For this purpose map the current and planned response capacities of (i) major international humanitarian actors (UN agencies, Red Cross/Red Crescent Family and international NGOs), including their partnerships with private/commercial sector and (ii) EU Member States as laid down in existing arrangements;

Make recommendations on further strengthening response capacities of key international humanitarian actors.

Effectiveness, efficiency, appropriateness and comparative strengths and advantages should be the underlying and main criteria of the study, which should provide information and analysis on the basis of research, desk study, interviews, etc. that goes beyond

information already available on websites and internet pages.

SPECIFIC OBJECTIVES

The study should examine the following elements which each provide more information on the orientation of the three components of the prime objective above (listed in the order in which research should be undertaken and in which the study should be presented):

Mapping of the current and planned international emergency response capacities of major international humanitarian actors and EU Member States in the following areas:

Transport and Logistics:

The study should summarise the existing transport and logistics facilities of (i) major international humanitarian organisations such as UNHCR, WFP, UNICEF, ICRC, IFRC, MSF, Care, World Vision, including their partnerships with the private/commercial sector for transport and logistics (DHL, TNT, UPS, Deutsche Post, etc.), and (ii) EU Member States as laid down in existing arrangement (in particular the SALIS contract and Standard Operating Procedures on use of Member States military and military chartered transportation assets and ESDP co-ordination tools in support of EU disaster response).

It should examine the potential of these major international humanitarian organisations to expand and strengthen existing capacities in transport and logistics.

It will have to focus on the different range of activities linked to the function of humanitarian logistics of international humanitarian organisations: (1) preparedness and planning; (2) procurement of goods and relief items; (3) humanitarian transport (sea, land, air); (4) storage and warehousing; (5) tracking, tracking and customs clearance; (6) distribution of supplies.

Logistics centres and Stockpiling

The study should clarify the arrangements in place in strategic/regional logistics centres/hubs of major international humanitarian organisations (in particular but not exclusively, UNHCR, WFP, UNICEF, ICRC, IFRC, MSF, Care, World Vision) and other actors (in particular DFID and USAID) with regards to the practice of pre-positioning and stockpiling of relief items, logistic goods and materials, vehicles and other operational support equipment for emergency response.

It should examine and identify strengths and weaknesses in how logistic centres/hubs deal with the following set of activities: (1) procurement (framework contracts, call-down agreements, virtual stocks, etc.), (2) standardisation of items, (3) the interoperability/interchangeability of items and/or stockpiles, (4) replenishment of stocks, (5) access to and control over stocks (ownership), (6) storage, warehousing, transportation, dispatch and delivery of items and goods from the hub to final destination for distribution (focus on shipments, chartering of airlifts, leasing or chartering of helicopters, fleets of vehicles held in strategic hubs, stand-by transport arrangements with civilian corporate sector and/or military actors, etc.).

It should identify existing or potential synergies and links between the different existing networks of logistic centres/hubs that are managed by major international humanitarian actors as well as their potential synergies with those managed by others such as USAID and DFID.

It should recommend how to make these networks of logistic centres/hubs (in particular the humanitarian response depot network managed by WFP and the regional logistics

centres managed by IFRC) function as service providers for any humanitarian actor so as to enhance the efficiency, effectiveness and appropriateness of the humanitarian response and avoid duplication and overlaps.

It should examine and identify strengths and weaknesses in the current networks of logistics centres/hubs as to the access of international humanitarian actors, to all the services and supplies provided by those participating in and managing the centre.

It should examine and identify strengths and weaknesses in the linkage of these strategic/regional logistics centres/hubs to the humanitarian cluster system and the link to common services provided by UNJLC and UNHAS.

It should also look into the involvement of cluster lead agencies in drawing up a list of standardised emergency relief items per cluster (in particular WASH, shelter and health cluster) to be pre-positioned in these centres/hubs.

It should indicate how the building up of these logistic centres/hubs has strengthened or what measures should be taken to further enhance their impact on the efficient, effective and appropriate provision of relief items and logistical supplies to the area of final use.

International co-ordination and Information Management

The study should examine the ability of international humanitarian actors to co-ordinate and synchronise humanitarian response activities in a complex emergency, a sudden or slow onset disaster and large scale crisis.

It should examine the ability of OCHA as central co-co-ordinating authority, in maintaining a global registrar/database on stockpiling and pre-positioning of relief items, transport assets and logistic capacities.

It should examine capacities of humanitarian actors to effectively and efficiently manage the provision and flow of accurate and relevant information on the humanitarian impact and needs caused by an emergency/disaster through the variety of tools and instruments it has at its disposal; i.e. humanitarian information centres, virtual OSOCC, relief web, emergency appeals, etc.

Quality Criteria

The study should examine the ability of international humanitarian actors not only to ensure a consistent quality of assistance supplied, but also the appropriate speed of delivery of both goods and personnel with optimum efficiency.

It should document the set of (SMART) indicators that are used by international humanitarian organisations to measure their response capacity and logistic performance.

Identification of potential gaps in the international emergency response capacity in terms of transport, logistics and stockpiling on the basis of baseline disaster scenarios:

The study should look into the existing and potential capacities for responding simultaneously or subsequently to three different types of crisis scenarios: 1 complex emergency such as Lebanon, 1 sudden onset disaster such as the Indonesian or Pakistan earthquake, and 1 slow onset disaster such as flooding in various parts of Africa. Although, it is recognised that a mega Tsunami, occurs once in 150 years, also the response capacities for responding to a mega Tsunami affecting a number of countries should be assessed. At the same time also the existing or potential capacities for responding to small(er) scale disaster scenarios such as earthquake in Kirgizstan (2008) should be reflected in the study.

Through these scenarios, it should demonstrate in which areas of logistics, transport and stockpiling, humanitarian actors have the appropriate capacities to respond or possess the potential to build up or strengthen existing capacities. It should also look into possible weaknesses and/or gaps that would need to be addressed.

Make recommendations on priorities for further strengthening emergency response capacities of key international humanitarian actors:

The study should advise and provide recommendations to increase the effectiveness, efficiency, speed and flexibility of the response in meeting critical humanitarian needs of people affected by complex emergencies, sudden and slow onset disasters and large scale humanitarian crisis. Focus should be in particular on the areas of transport, logistics and stockpiling.

TASKS TO BE ACCOMPLISHED

The basis for the consultants' opinions shall be:

A desk study of most relevant research papers, studies, reports, evaluations, lessons learnt papers, and applicable legislation/regulations bearing in mind DG ECHO's perspective and interest. Consultants will carry out a comparative analysis of the conclusions and recommendations drawn in those documents;

Interviews with key DG ECHO headquarters officials (policy, evaluation, operational/geographical);

Interviews with representatives of UK, USAID, agencies and other donors and humanitarian agencies, in particular but not necessarily those who have a track record of funding or implementing procurement, stockpiling and transport of humanitarian goods;

Interviews with partners such as WFP, IFRC, UNHCR, WHO, UNICEF, UNOCHA, ICRC, VOICE, and some NGOs to be decided during the briefing in Brussels;

Visits to major humanitarian organisations in Geneva (UN and IFRC) and Rome (WFP) to be discussed during the briefing in Brussels.

TIMELINE

Submission of a first project document to DG ECHO after the briefing session to be held in Brussels immediately after the signature of the contract, based on the briefings, reviews and interviews conducted during the briefing period. In line with the TOR and deliverables required, this project report should contain the consultants' detailed/updated proposals in terms of work processes, as well as a clear description of the scope and methodology for the deliverables, if necessary.

Submission of a final report to DDG ECHO six months after the signature of the contract. Traditional methodology should be adapted to the specificity of the issues and include, but not restricted to: **appropriateness, relevance, efficiency, effectiveness, impact, sustainability** and possibly additional criteria that might emerge during the briefing phase and desk study. Moreover, the consultants shall analyse **coherence, co-ordination and complementarities** in terms of donor approach. Each final report should contain a set of clear conclusions and recommendations and should not exceed 40 pages (15 pages text + 25 pages of annexes) unless duly justified.

2.0 Methodology

The team initially met with ECHO to discuss and finalise the methodology of the study. A list of proposed interviewees was agreed upon as well as a structure for the output and tools of the study. Interviews with the two main logistics agencies – World Food Programme (WFP) and the International Federation of Red Cross and Red Crescent Societies (IFRC) – were established first and it was considered vital that at least two team members attend both interviews in person. The other interviews were conducted by individual team members in person or via phone.

The team from IDART carried out the ECHO study from August to December 2008, performing over 50 interviews with 30 organisations in 12 countries in addition to the review of relevant documents, studies, and papers. The interviews were conducted with professional staff in UN, NGO, Governmental, Military, Private/Commercial, and Donor organisations, including supply chain and logistics experts, procurement officers, storage and warehousing specialists, emergency managers and others as they were deemed relevant to the study. The team followed the guidance set out in the ECHO contract ECHO/01/2008/02/Logistics and described in the Initial Report on Methodology.

On the basis of a review of the most current white and research papers, studies, reports, evaluations, lessons learnt papers, and applicable legislation/regulations, bearing in mind DG ECHO's perspective and interests, the study identifies gaps and/or challenges in the international emergency response capacity in terms of transport, logistics and stockpiling. A comparison of existing and planned capacities has been analysed against a set of three baseline disaster scenarios – a complex emergency, a sudden-onset disaster, a slow-onset disaster – occurring in sequence or simultaneously. The underlying and main criterion of the study is to analyse the effectiveness, efficiency, appropriateness and comparative strengths and advantages of the existing logistics structures while making recommendations on how ECHO and other donors can further strengthen the transport, logistics and stockpiling capacities of key international players. Definitions of the terminology and the disaster scenarios used in the study can be found in the attached Glossary at the end of this report.

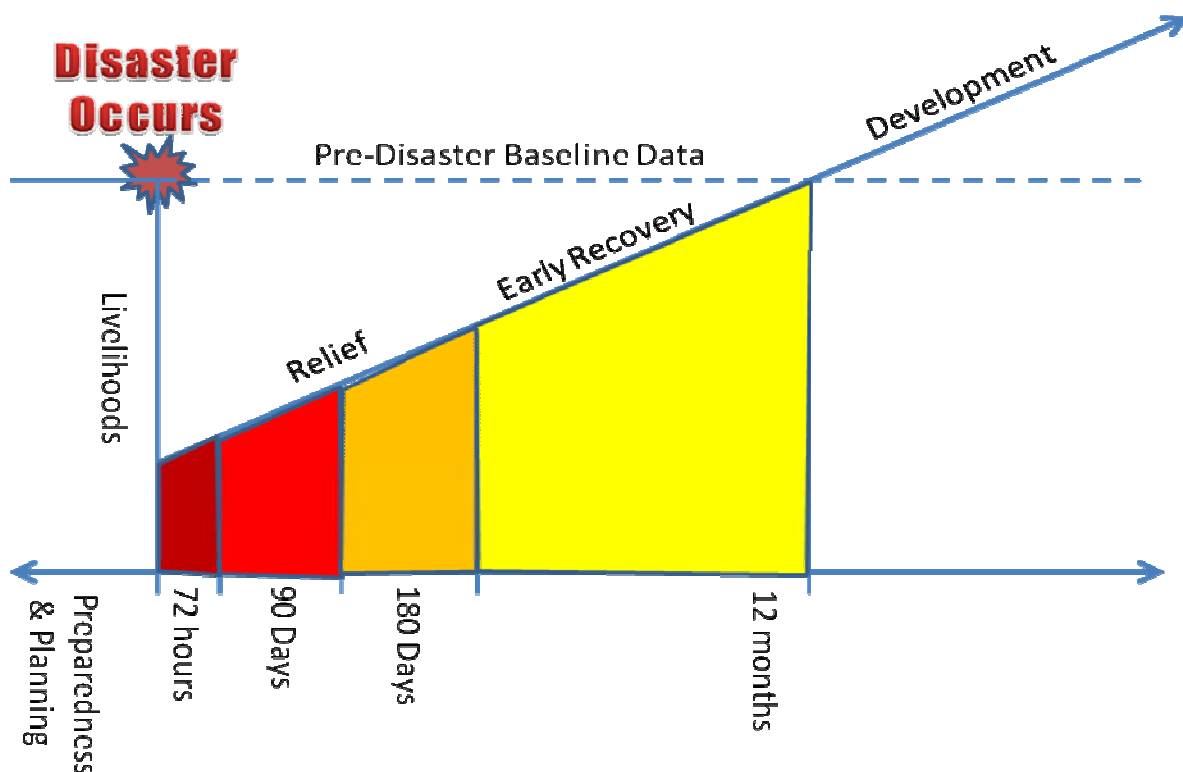
The overall approach of the team is to be as practical as possible in evaluating the various supply chain capacities and realistic in developing recommendations. In order to do this, it is important to establish realistic parameters for the underlying disaster scenarios and capacities to be evaluated and to continually benchmark responses against these parameters. The study examines the transport, logistics and stockpiling capacity of the humanitarian community to effectively and efficiently respond to the three disaster scenario with life-saving relief from the pre-event conditions up to 180 days after the onset of the disaster. The capacity to respond to such a scenario was examined in the context of not disrupting current operations or diminishing current capacities.

In graphical terms, the diagram below recognizes the preparedness and planning efforts of the humanitarian community prior to the disaster event. Once disaster strikes, an immediate response within 72 hours is expected, followed by further relief efforts. Each 90-day period represents a benchmark in the delivery and relief items, with the outer limit of 'emergency' response being 12 months from the time of the disaster. The scope of this study will be bound by the limits of the ECHO mandate whose principal objectives are:

- a) To save and preserve life during emergencies and their immediate aftermath and natural disasters that have entailed major loss of life, physical, psychological or social suffering or material damage;
- b) To provide the necessary assistance and relief to people affected by longer-lasting crises arising, in particular, from outbreaks of fighting or wars, producing the same effects as those described in subparagraph (a), especially where their own governments prove unstable to help or there is a vacuum of power;
- c) to ensure preparedness for risks of natural disasters or comparable exceptional circumstances and use a suitable rapid early-warning and intervention system;

This comprises different types of activity, such as:

- d) To help finance the transport of aid and efforts to ensure that it is accessible to those for whom it is intended, by all logistical means available, and by protecting humanitarian goods and personnel, but excluding operations with defence implications;
- e) To carry out short-term rehabilitation and reconstruction work, especially on infrastructure and equipment, in close association with local structures, with a view to facilitating the arrival of relief, preventing the impact of the crisis from worsening and starting to help those affected regain a minimum level of self-sufficiency, taking long-term development objectives into account where possible;
- f) To cope with the consequences of population movements (refugees, displaced people, and returnees) caused by natural and man-made disasters and carry out schemes to assist repatriation to the country of origin and resettlement there when the conditions laid down in current international agreements are in place;



3.0 Study Team

The IDART team consisted of three persons – Mr. Jeff Lewis (Team Leader), Mr. Wolfgang

G. Krajic, and Ms. Cvetka Krajic-Tomin. The team contains a thorough and varied experience in disaster management and humanitarian assistance including operations, transport, logistics, stockpiling, civil-military relations, EU/NATO structure, and UN/NGO/Standby Partner operations.

4.0 Desktop Study

The first phase of the study was to look for current and/or relevant documents – both inside and outside the humanitarian community – that identify the key elements for the best transport and logistics systems. A list of the main documents referenced in the report can be found in Annex 4.1 and 4.2.

In The Journal of the Operational Research Society (2006), Mr. LN Van Wassenhove introduced a paper that built on the idea that private sector logistics can and should be applied to improve the performance of disaster logistics. He states that “just as the private sector, over a decade ago, humanitarian organisations are beginning to wake up to the fact that logistics:

- is crucial to the performance (effectiveness and speed) of current and future operations and programmes;
- serves as a bridge between disaster preparedness and response, between procurement and distribution, and between headquarters and the field;
- provides a rich source of data, since it is this department that handles the tracking of goods, which could be used to analyse post-event effectiveness; and,
- is the most expensive part of any relief operation and the part that can mean the difference between a successful or failed operation.”

The Fritz Institute, “a non-profit organisation based in San Francisco whose mission is to strengthen the infrastructures of humanitarian relief organisations by mobilising logistics and technology expertise and resources from the corporate and academic communities”, has written extensively on the importance of and the difficulties faced by humanitarian logistics. In the 2003 document, Humanitarian Logistics: Enabling Disaster Response, the author, Dr. Anisya Thomas, contends that the industry-wide standards and practices used in the commercial sector can and should be incorporated into the humanitarian community and suggests that humanitarian logistics focus on five areas:

- Establishing a **community of practice** will enable humanitarian logisticians to share knowledge and experience on common issues and to work together to create one voice with donors and partners;
- Formalising **knowledge management** will overcome, to some extent, the lack of institutional knowledge that occurs because of high employee turnover by capturing and disseminating knowledge in an organised way;
- Developing **flexible technology solutions** will improve responsiveness by creating visibility of the materials pipeline and increasing the effectiveness of people and processes. Furthermore, advanced information systems will create the infrastructure for knowledge management, performance measurement and learning;
- Focusing on **metrics, performance measurement and learning** capabilities will empower logisticians to continuously improve the effectiveness of relief operations – and so create the powerful story that is needed to overcome funding constraints – to convince donors that investing general funds in disaster preparedness is a wise use of funds and will have greater impact at less cost than funding a narrower range of activities;

- **Effective use of voice** will enable logisticians to create awareness of the contribution that logistics makes and to obtain needed resources.

Each one of these areas has been addressed by the humanitarian community over the past five years. Perhaps not to the extent suggested in the paper, but logisticians have moved from the 'back office' to being recognised as a vital and integral part of emergency response. By all accounts, logistics accounts for 70%-80% of an emergency budget and, therefore, considering the whole supply chain function can be responsible for the success or failure of the entire relief effort. Humanitarians do not address the supply chain in the same manner as the commercial sector. Budgeting and planning exercises have not typically included logistics counterparts. Times are changing, though, and the IFRC, UN, NGO, and other humanitarian organisations are raising the profile of logistics and taking corporate measures to professionalise the various transport and logistics functions. However, there are some distinct differences in humanitarian logistics that cannot be ignored and should be the point of departure when making comparisons to the commercial sector. For example, commercial entities measure success with profitability and cost-savings; humanitarians measure success by lives reached and saved.

The predominant challenges for any successful global supply chain are agility and responsiveness. The 'demand' for goods and services, in the emergency humanitarian world, is highly unpredictable and can be enormous when it exists. In the commercial sector, demand can be 'created' by advertising and, therefore, have some control over the certainty of demand and supply. Humanitarians operate in a highly *uncertain* world where demand can be unknown even well into the event and supply is/can be volatile. Abnormal demands on emotional and physical well-being are much more obvious in the humanitarian world as are the high number of various (and sometimes opposing) stakeholders. Additionally, but not finally, humanitarians operate under principles of humanity, neutrality, and impartiality in a very complex and, sometimes, dangerous operating environment where the commercial sector is not bound by such moral or ethical conduct even though corporate social responsibility may be present in management's decision-making. This is in stark contrast to the civil defence/military personnel deployed in a crisis as they are the armed representatives of a specific government, are bound by legal political treaties, authorities, and responsibilities, and are primarily concerned with force protection when making decision as to whom they might assist. Therefore, each player in the humanitarian supply chain has a different capacity, if not definition, for both agility and responsiveness. Best practice in quality criteria, the measurement of success, suggest the need to develop Key Performance Indicators (KPIs) specific to humanitarian logistics. All logistics providers in a humanitarian response should be held to the same standards and evaluations and the indicators must measure the correct response relative to the humanitarian objectives. This is vital when applying commercial indicators to humanitarian actions. SMART indicators are recommended.

Of all the documents reviewed only the NATO logistics handbook did not go into detail about at least one aspect of the aforementioned papers' conclusions. The NATO guide did write about these subjects in purely military settings, but not in relation to Civil-Military activities or humanitarian operations. For the purposes of this study, however, it can be concluded that the critical success factors highlighted are universally applicable to the humanitarian transport, logistics and stockpiling mechanisms under review.

4.1 Study Document List

- Humanitarian Aid: An Agile Supply Chain?, Oloruntoba, Gray, *Supply Chain Management: An International Journal*, 2006;
- 23 Principles of Good Humanitarian Donorship, 2003;
- Humanitarian Relief Supply Chain: Analysis of the 2004 South East Asia Earthquake and Tsunami, Russell, Degree paper from MIT, 2006;
- Humanitarian Aid Logistics: Supply Chain Management in High Gear, *Journal of the Operational Research Society*, 2006, 57, pg. 475-489;
- Critical Success Factors for Emergency Relief Logistics, Lu, Pettit, Beresford, *WHAMPOA – an Interdisciplinary Journal* 51 (2006), pp. 177-184;
- EU Consensus on Humanitarian Aid, 15099/07, *Joint Statement by the Council and the Representatives of the Governments of the Member States meeting within the Council, the European Parliament and the European Commission - The European Consensus on Humanitarian Aid*, 2007;
- The Evolving Supply Chain Landscape and How to Become Demand Driven, Price, *An Industry White Paper*, 2007, AspenTech;
- From Logistics to Supply Chain Management: The Path Forward in the Humanitarian Sector, Thomas, Kopczak, The Fritz Institute, 2005;
- Grant Agreements IFRC 2005 and 2007-2008, ECHO document;
- Good, Better, Best – Assessing Your Supply Chain Performance, Tompkins Associates, Inc., *Supply Chain Edge*, 2008;
- *NATO Logistics Handbook 2007*;
- Feasibility Study for a Middle East Emergency Response Depot, Presentation to WFP at the Fritz Institute Humanitarian Logistics Council – Geneva, 2007;
- ECHO Manual Project Cycle Management (June 2005) ver. 050617;
- United Nations Joint Logistics Centre Concept Paper, 2007;
- Military Support to EU Disaster Response, EU Document 2006;
- IOM and the Cluster Approach; 05/EPC-CLUSTER/0807
- Strategic Air Lift Interim Solution (SALIS) MOU, 2004

4.2 Internet Resources

(All valid as of December 2008)

- Universita della Svizzera italiana / Lugano; Master of Advanced Studies in Humanitarian Logistics and Management, <http://www.humanitarianlogistics.ch>
- Humanitarian Logistics Association, <http://humanitarianlogistics.org>
- Conference on Humanitarian Logistics, Atlanta / Georgia / USA, Feb 2009, <http://www2.isye.gatech.edu/dpr09>
- SMART Network, <http://www.smartindicators.org>
- Key Performance Indicators in Humanitarian Logistics by Anne Leslie Davidson, http://www.fritzinstitute.org/PDFs/findings/XS_Davidson_Anne.pdf

- IOM and CIMIC, http://www.iom.int/jahia/webdav/shared/shared/mainsite/activities/mepmm/op_support/epc_cimic_071107.pdf
- Proceedings of the Humanitarian Logistics Conference 2008, Geneva / CH, 21 / 22 April 2008, <http://www.fritzinstitute.org/prgSC-HLC2008-proceedings.htm>
- What is logistics (definitions), <http://www.logisticsworld.com/logistics.htm>
- UN Humanitarian Reform, <http://ocha.unog.ch/humanitarianreform/Default.aspx?tabid=53>
- Logistics Cluster, <http://www.logcluster.org/>

4.3 Parallel Study: Terms of Reference

(Commissioned by the DG Environment / Civil Protection Unit and carried out by ECORYS Research and Consulting)

PURPOSE OF THE STUDY:

To this end, the European Commission requires improved knowledge on the cost and potential impacts of no action – the cost of not further strengthening the Mechanism. Such consolidation could potentially lead to a European Civil Protection Force, pooled disaster response resources, and a common finance capacity for disasters that overwhelm national response capacities. Such a strengthened Mechanism would build on the EU principles of solidarity and shared responsibility between Member States. Thus, the study's purpose is to investigate the potential gaps between current European disaster response capacities and the response capacity required by potential future disaster scenarios.

This effort, in turn, will require further insight on the type and likelihood of major disasters that could strike EU Member States or third countries in the future. More information is also needed on the current national response resources as well as capacities required to respond to potential future disasters.

Overall, the study will be part of - and serve as a first step for - a wider Commission impact assessment on the strengthening of the European capacity to respond to disasters.

To summarize, the objective of this study is:

- To understand where we are in terms of current response capacity;
- To estimate the cost of no action (the cost of not strengthening the current European Mechanism);
- To build the knowledge base for a future proposal on a comprehensive European action package to address natural and man-made disasters in the future.

OUTPUT:

To achieve these overall objectives, several key outputs are identified:

- Define a set of reference scenarios of potential disasters taking place in the EU or in third countries that would require the activation of the Community Civil Protection Mechanism;
- Assess civil protection resources needed for a European response to the reference disasters;
- Make an inventory of available civil protection resources using existing information, interviews and questionnaires;
- Identify potential quantitative or qualitative gaps in the resources available versus the resources needed in the future.
- (Originally this study also included an impact assessment on the costs of no action. However, this has been deemed as too ambitious for this first study and has therefore been excluded.)

SCOPE:

In this section we would like to reconfirm the proposed scope of the study. In terms of **geographic coverage**, this study will focus on the EU-27 countries as well as other Member States of the Community's

Civil Protection Mechanism, namely Iceland, Liechtenstein and Norway. Additionally, but to a lesser extent, this study will take into account disaster scenarios from major disaster-prone third countries or regions.

In terms of the disaster management cycle and the various activities promoted under the Mechanism, this study will mainly **focus on immediate response to disasters with a sudden onset** (i.e. this study does not include slow-onset disasters, such as drought or heat waves). Nevertheless, the study team will also consider how adequate preparedness and prevention influence the need for immediate response capacity. For this, we will include indicators on prevention investment into our calculations on the future cost of no action.

Finally, it is essential to clearly define the terms “response capacity” and “costs of no action”. We propose the following **definitions**:

- **‘Disaster response’** for the purpose of this study is defined in a narrow civil protection response sense: it concerns only the immediate response after a disaster has struck. Immediate response typically includes equipment and teams. It does not focus on relief items such as food, covers, etc. In terms of disaster type, disaster response does not include response to slow-onset disasters, such as droughts or heat waves.
- **‘Response capacity’** and ‘preparedness’ means a state of readiness and capability of human and material means enabling them to ensure an effective rapid response to an emergency, obtained as a result of action taken in advance. It is not only a function of a national resource inventory, but also about the ability to deploy these resources to a disaster site outside the country that is providing its immediate response - modules to a disaster that overwhelms national capacities elsewhere in the EU or worldwide.
- **‘Costs of no action’** refers to the decision NOT to strengthen current capacities of the Mechanism. Thus, the ‘costs of no action’ is the gap between the current capacities and the potentially required capacities in the future. This cost not only includes economic costs. It also includes social and environmental impacts that could occur due to inadequate response capacities. The ‘cost of no action’ option thus reflects a decision to keep disaster response a non-harmonized area of cooperation rather than building up a strong European response mechanism.

The analysis of this option needs to also include any ‘additional’ costs incurred due to not having a harmonized EU response mechanism (i.e. non-efficient use of resources, lost opportunities, etc.). Here, it is crucial to determine what could be common EU equipment (e.g. planes to fight fires). Once such inventory has been established, it will be possible to determine the potential additional costs.

- **‘Response resources’** cover civil protection response capacities such as civil protection modules or other relevant CP equipment and tools that either do not comply with or are not covered by the existing technical framework of civil protection modules. Examples include inflatable dykes, ground fire fighting teams and equipment, water pumping and purification material, IDP logistics team, mobile water storage tanks, helicopter for aerial surveillance, maritime pollution cleansing equipment and team, etc.

5.0 EU Member States' arrangements (and Norway):

EU MS	Humanitarian Assistance	Civil Protection Interventions	CP Agency / Department
Denmark ⁴⁸	Ministry of Foreign Affairs	Ministry of Defence	Danish Emergency Management Agency (DEMA)
France ⁴⁹	Ministry of Foreign Affairs	Ministry of Interior Direction de la Défense et de la Sécurité Civiles	Direction de la Défense et de la Sécurité Civiles
Germany ⁵⁰	The Federal Foreign Office - The Federal Ministry for Development Cooperation's (BMZ)	Ministry of Interior/ Federal Office of Civil Protection and Disaster Assistance	German Federal Agency for Technical Relief (THW)
Ireland ⁵¹	Ministry of Foreign Affairs Irish Aid - Department of Foreign Affairs	Ministry for Environment, Heritage and Local Government	Fire Services and Emergency Planning Section
Italy ⁵²	Ministry of Foreign Affairs Directorate General for Development Co-operation	Department of Civil Protection	Department of Civil Protection
The Netherlands ⁵³	Ministry of Foreign Affairs	Ministry of the Interior and Kingdom Relations	Directorate-General for Public Order and Safety
Norway ⁵⁴	The Royal Ministry of Foreign Affairs	The Royal Ministry of Foreign Affairs	Norwegian Directorate for Civil Protection and Emergency Planning
UK ⁵⁵	UK Government -The Department for International Development (DFID)	Cabinet Office	Civil Contingencies Secretariat

⁴⁸ Denmark: [Ministry of Foreign Affairs](#); www.brs.dk

⁴⁹ France: "France Diplomatie";
http://www.interieur.gouv.fr/sections/a_1_interieur/defense_et_securite_civiles/presentation/view

⁵⁰ Germany: [Federal German foreign ministry](#); [THW - Home](#)

⁵¹ Ireland: [Department of Foreign Affairs](#); [Irish Aid - About - Minister of State](#);

<http://www.environ.ie/en/AboutUs/OurLocations/>

<http://www.environ.ie/en/LocalGovernment/FireandEmergencyServices/EuropeanLevelCivilProtection/>

⁵² Italy: [Ministry of Foreign Affairs](#) ; <http://www.protezionecivile.it/sistema/dipartimento.php>

⁵³ Netherlands: [Ministry of Foreign Affairs](#)

⁵⁴ Norway: <http://www.dsb.no/forside.asp>; <http://www.regjeringen.no/en/dep/ud.html?id=833>

⁵⁵ United Kingdom: [Foreign and Commonwealth Office](#); www.dfid.gov.uk;

<http://www.ukresilience.gov.uk/ccs.aspx>

Besides their national arrangements, which vary widely throughout the European Union, and bilateral agreements amongst themselves, MS are in different constellations members / signatories and / or stakeholders to multiple multilateral arrangements. Within the EU, MS are discussing issues pertaining to humanitarian and disaster response logistics amongst others in the framework of the Council of the European Union (e. g. the “General Framework for the use of Member States military or military chartered Transportation Assets and ESDP Coordination tools in Support of EU Disaster Response” or the “Military support to EU disaster response: - Identification and coordination of available assets and capabilities”) and the European Community Civil Protection Mechanism (e. g. the “Rules for the implementation of the provisions on transport”⁵⁶). Outside the EU, MS, who are also members of other alliances (e. g. NATO) have a variety of bi- and multilateral arrangements in place. Two prominent examples are the Strategic Airlift Interim Solution (SALIS)⁵⁷ - Memorandum of Understanding, which provides some EU MS (BE, CZ, DE, DK, ES, FI, FR, HU, LU, NL, PL, PO, SE, SK, SI, UK) with access to strategic airlift capacities and the informal network of the International Humanitarian Partnership (IHP)⁵⁸, which brings together EE, FI, DK, NL, NO, SE, and UK in order to mutually, logistically support each others’ disaster response and humanitarian aid operations.

6.0 Study Questions

6.1 Intra-Organisational Logistics

1. How does your organisation define each of the scenarios given?
2. Given the ECHO scenario definitions, which countries would your organisation recommend be included under each scenario?
3. What are the advantages of logistics hubs/centres for your organisation in the scenario?
4. How have logistics hubs/centres affected costs and timing in past responses?
5. Have you used the hubs/centres of other organisations?
6. Do you allow other organisations to use your hubs/centres?
7. Which supply chain mechanisms/tools have provided support in previous emergency responses?
8. Of the mechanisms/tools that have been successful for your organisation, how have lessons learned been adopted into current logistics operations?
9. What is/are the limit(s) of your organisation’s logistical response to the scenario, e.g. caseload, type of aid provided, etc.?
10. Does your organisation have a current logistics system in place to sufficiently respond the scenario?
11. What mechanisms (e.g. partnerships) does your organisation currently have in place for logistics response in the scenarios?
12. Is your organisation planning for a future logistics system to sufficiently respond to the scenario?
13. What mechanisms are planned for your organisation in the future to enhance its logistical response?
14. What is the maximum caseload, within any scenario, that your organisation can respond to effectively within 3 days of a crisis?

⁵⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:241:0017:0023:EN:PDF>

⁵⁷ http://www.defenseindustrydaily.com/files/2004-06-28_NATO_SALIS_MoU.pdf

⁵⁸ <http://ochaonline.un.org/Coordination/FieldCoordinationSupportSection/IHP/tabid/1450/Default.aspx>

6.2 Preparedness and Planning

1. What are the key components of your organisation's preparedness and planning capabilities?
2. What is/are your organisation's biggest challenge(s) in preparing and planning for the simultaneous scenarios?
3. What is/are your organisation's biggest strength(s) in preparing and planning for the simultaneous scenarios?
4. What the expected lead times for centres of logistics activity during the scenarios?
5. What are the related costing issues for preparedness/planning, e.g. training costs?
6. Does your organisation currently participate in planning exercises for these types of scenario?
7. If it does, does your organisation participate jointly with other organisations? Which ones?
8. Which mechanisms / tools does your organisation use to support its preparedness and planning activities, e.g. AID Matrix?
9. Which co-ordination mechanisms are currently used by your organisation for preparedness/planning activities?
10. As part of your organisation's logistics preparedness, which relief items, if any, to you stockpile?
11. Does your organisation use long-term contracts as part of its logistics preparedness? Describe.

6.3 Procurement

1. What are the key components of effective procurement for responding quickly to disasters?
2. What is/are your organisation's biggest challenge(s) in procurement for the simultaneous scenarios?
3. What is/are your organisation's biggest strength(s) in procurement for the simultaneous scenarios?
4. Describe the procurement mechanism currently used by your organisation that would be used in each scenario?
5. What, if any, are the improvements you would suggest for increasing the efficiency of the procurement system in order to respond to the scenarios?
6. What are the key items that would be purchased through your organisation's procurement system to respond to the scenarios?
7. To what extent are relief items your organisation uses linked to the relative Clusters?
8. What, if any, is the mechanism used by your organisation to co-ordinate the purchase of relief items with other relief providers?
9. What are the limits you have observed of co-ordinating procurement activities with others?

6.4 Humanitarian Transport (Sea, Land, Air)

1. What are the key components of humanitarian transport for your organisation?
2. What is/are your organisation's biggest challenge(s) in transport for the simultaneous scenarios?
3. What is/are your organisation's biggest strength(s) in transport for the simultaneous scenarios?
4. What standby arrangements for logistics does your organisation have?

5. What are the surge capacity issues and limitations (e.g. all agencies asking for the same items during a crisis) for your organisation and how does it resolve these?
6. What are the means of transport your organisation would anticipate to respond to the scenarios?
7. What is the co-ordination mechanism for humanitarian transport your organisation uses?
8. What are, if any, the co-ordination mechanisms other humanitarian organisations use?
9. Are there possible enhancements inside your organisation that would improve humanitarian transport?
10. Are there possible enhancements with other organisations that would improve humanitarian transport?

6.5 Storage and Warehousing

1. What are the key components of storage and warehousing?
2. What is/are your organisation's biggest challenge(s) in storage and warehousing for the simultaneous scenarios?
3. What is/are your organisation's biggest strength(s) in storage and warehousing for the simultaneous scenarios?
4. What arrangements does your organisation have with regards to strategic stockpiles and/or pre-positioned relief items?
5. What are your organisation's most important components/mechanisms for effective rapid response – cash, virtual stocks, etc.?
6. What percentage of physical relief items does your organisation maintain in warehouses?
7. Given the scenarios, what would be the ideal mix of relief items stored for your organisation?

6.6 Tracking and Customs Clearance

1. What are the key components for commodity tracking during the scenarios?
2. What are the key components for Customs Clearances during the scenarios?
3. What is/are your organisation's biggest challenge(s) in tracking and customs clearance for the scenarios?
4. What is/are your organisation's biggest strength(s) in tracking and customs clearance for the scenarios?
5. Does your organisation currently have a commodity tracking system in place for rapid response activities?
6. Does your organisation have specific custom clearance privileges in the locations where it operates?
7. What mechanism does your organisation use for clearing relief items through customs in areas where it does currently operate?
8. What, if any, mechanism does your organisation participate in that supports co-ordination of tracking and clearance of relief items?

6.7 Distribution

1. What are the key components of distribution for the scenarios?
2. What is/are your organisation's biggest challenge(s) in distribution for the simultaneous scenarios?
3. What is/are your organisation's biggest strength(s) in distribution for the

simultaneous scenarios?

4. What are the criteria your organisation would use for distribution in the scenarios?
5. What are the most important relief items for your organisation to distribute during the scenarios?
6. What mechanism, if any, does your organisation use to co-ordinate distributions?
7. Do the same units/personnel in your organisation perform distribution activities that perform procurement, transport, and storage?
8. Does your organisation perform the end user/final distributions or use an implementing partner?
9. If your organisation uses an implementing partner, what are the special arrangements you have with regards to accountability, performance, etc.?
10. What are the strengths/challenges to your organisation's method of end user distribution?

6.8 External Logistics Co-ordination and Information Management

1. What would the key components of logistics co-ordination and information management be in the scenarios?
2. What is/are your organisation's biggest challenge(s) in logistics co-ordination and info management for the simultaneous scenarios?
3. What is/are your organisation's biggest strength(s) in logistics co-ordination and info management for the simultaneous scenarios?
4. Would your organisation participate in the UN Logistics Cluster during the scenarios?
5. Does your organisation participate in the working group for the UN Logistics Cluster?
6. To what extent does your organisation standardise its relief items and/or exchange with other organisations?
7. Which information management tools would your organisation utilise for the scenarios?
8. In which of the common services does your organisation participate: UNHAS, UNJLC, Emergency Telecom, and HIC?
9. Are there any other logistics co-ordination and/or info management tools that your organisation utilises in the scenarios?
10. Does your organisation have procedures/arrangements in place for the use of national/international military assets?

7.0 Interview List

EC – DG ECHO – Brussels (Jeff, Wolfgang)

- MR. HERMAN MOSSELMANS, Head of Unit, Legal and Procedural Affairs
- MS. JOACHIME NASON, Policy Affairs, Strategy, Evaluation
- MR. RICHARD LEWARTOWSKI, Policy Affairs, Strategy, Evaluation
- MR. HELMUT KAISER, Contracts and Finance
- MR. WALTER VAN HATTUM, Policy Affairs, Strategy, Evaluation

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- MR. WASEEM KHAN, Procurement Officer
- MR. PETER CASIER, Project Manager – Systems Integration
- MR. BERNARD CHOMILIER, Project Manager – Logistics Development Unit
- MR. DIDIER FRISCH, Director Shipping
- MR. JOOP MENKVELD, Deputy Director Procurement (Food)
- MR. CARLOS VELOSO, Director Emergency Preparedness

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- MR. MIRTEC MAJ, Logistics Personnel

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GLOSSARY

ACRONYMS AND ABBREVIATIONS

3PL	Third party logistics
ACF	Action Contre la Faim
AE	United Arab Emirates
ALITE	Augmented Logistics Intervention Team for Emergencies
AU	African Union
BE	Belgium
CARE	Cooperative for Assistance and Relief Everywhere
CERF	Central Emergency Response Fund
CH	Switzerland
CIDA	Canadian International Development Agency
CMCS	Civil – Military Coordination Section
CNN	Cable News Network
CRS	Catholic Relief Service
DEMA	Danish Emergency Management Agency
DFID	Department for International Development
DG	Directorate General
DHL	Adrian Dalsey, Larry Hillblom and Robert Lynn (founders of company)
DSB	Direktoratet for samfunnssikkerhet og beredskap (Directorate for Civil Protection and Emergency Planning)
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
EC	European Commission
ECHO	European Commission Directorate General for Humanitarian Aid
ESDP	European Security and Defence Policy
EU	European Union
EU MS	European Union Military Staff
HA	Humanitarian Assistance
HIV / AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
HPC	Humanitarian Procurement Centre
HU	Hungary
ICRC	International Committee of the Red Cross
IDART	International Disaster Assistance and Relief Training
IFRC	International Federation of Red Cross and Red Crescent Societies
IO	International Organisation
IM	Information Management
IT	Italy
IT	Information Technology
JLC	Joint Logistics Centre
JO	Jordan
KE	Kenia
KPI	Key Performance Indicator
LCSC	Logistics Cluster Support Cell
LPI	Logistics Performance Index

LRT	Logistics Response Team
MCDA	Military and Civil Defence Assets
MIC	Monitoring and Information Centre
MOFA	Ministry of Foreign Affairs
MOU	Memorandum of Understanding
MS	Member State (of the European Union)
MSF	Medecins sans Frontieres
NATO	North Atlantic Treaty Organisation
NFI	Non-food Item
NGO	Non-governmental Organisation
NL	The Netherlands
OCHA	Office for the Coordination of Humanitarian Affairs
OSOCC	On-site Operations Coordination Centre
PA	Panama
PAHO	Pan-American Health Organisation
PRM	Bureau of Population, Refugees, and Migration of the Department of State / US
PVO	Private Volunteer Organisation
RLU	Regional Logistics Unit
SALIS	Strategic Air Lift Interim Solution
SMART	Standardised Monitoring & Assessment of Relief & Transitions
SMS	Short Message Service
THW	Bundesanstalt Technisches Hilfswerk (German Federal Agency for Technical Relief)
TNT	Thomas Nationwide Transport (founding name of company)
UAE	United Arab Emirates
UK	United Kingdom of Great Britain and Northern Ireland
UNDPKO	United Nations Department of Peacekeeping Operations
UNHAS	United Nations Humanitarian Air Service
UNHCR	United Nations High Commissioner for Refugees
UNHRD	United Nations Humanitarian Response Depot
UNICEF	United Nations Children's Fund
UNJLC	United Nations Joint Logistics Centre
UPS	United Parcel Service of America, Inc.
US	United States (of America)
USAID	United States Agency for International Development
UXO	Unexploded Ordnance
VOICE	Voluntary Organisations in Co-operation in Emergencies
WASH	Water, Sanitation and Hygiene
WB	World Bank
WFP	World Food Programme
WVI	World Vision