

Roles of Humanitarian Actors in the Humanitarian Logistics

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Abstract

In this research we aim to take initial steps toward identifying a framework for classifying the roles of different humanitarian actors in the humanitarian supply chains during operations relief. In this paper we carry out a secondary review of the Pakistan floods of 2010 and the crisis in Syria 2011.

Keywords: Humanitarian supply chain, humanitarian supply chain actors, actor roles.

INTRODUCTION

Considering the complexity of humanitarian supply chain infrastructure, the need for efficient processes (i.e. Van Wassenhove, 2006; Kovács, 2011) as well as the sometimes problematic collaboration between actors in the humanitarian supply chain, it becomes obvious that defining clear roles during a relief operation is crucial. Therefore an outsider observing a major relief operation might be forgiven for being confused at the sheer number of actors involved. Even considering only UN bodies, national governments and the most high-profile international NGOs, coordination is a substantial challenge when requirements are largely unknown. Add to this the enormous plethora of smaller organizations and other interested parties and the response becomes excessively complex, especially in terms of the division of labor – the ‘who does what where when how.’ This is not a new problem for the sector – indeed substantial efforts have been made to improve overall coordination and the ways how organizations talk to each other, and some of these efforts have been lauded as successful. Even so, coordination meetings with a hundred participants make it impossible for everyone to talk to everyone (i.e. Logistics Cluster, 2010; Logistics Cluster, 2014).

Coordination is one of the topics that have received some attention within the humanitarian logistics field in terms of research, but the problem of who does what where can also be expressed as what roles the different actors have. This issue has received minimal academic attention (Jahre and Jensen, 2010) with current efforts having dealt with the role of specific types of individuals (Jensen, 2012). The issue of roles speaks to both a deeper and more basic level of coordination – i.e. what is a particular actor supposed to be doing and how is it supposed to act in a relief effort, but also speaks to more long-term issues such as what competence and what resources should an actor be focusing on developing. From a practical point of view knowing clearly what to expect

from a specific actor makes the coordination issue easier, and from an academic point of view a classification of roles is a first step towards recommendations on how the humanitarian supply chain can be improved, or what alternatives exist. Thus our purpose is to identify a framework for classifying the roles of different humanitarian actors in humanitarian supply chains during relief operations. Therefore we have selected two relief operations – the Pakistan floods of 2010 and the crisis in Syria from 2011 onwards. In this paper we focus on developing a basic framework for roles and discussing what these mean.

The remainder of this research paper is divided in five sections; the next section introduces a brief review of literature about roles of actors in supply chains. In the method section we aim to introduce the applied method of case study research (Yin, 2009) to develop a basic framework for roles during relief operations. Furthermore, we presents the empirical data of the two cases in Pakistan and Syria by using published reports and descriptions of the response for these interventions. Before our conclusion, we provide an overview of the main actors involved, their types, activities and roles in the interventions.

THEORETICAL BACKGROUND

There are several general concepts of roles in the literature, and although these may be related to each other we would like to start from two initial definitions. The first concept of a role is related to the expectations that others have of a firm or individual (Merton, 1957). When starting an interaction with a particular individual the role of this individual sets basic rules for the interaction. This can be broadly related to the concept of a humanitarian space where relief workers are expected to have a particular role in relation to the affected population, and where role conflict can arise if they are working together with actors that do not respect the humanitarian space. This definition originates from the sociology literature and at an individual level, but can be related to the more traditional literature on marketing channels. In the traditional marketing channels literature the roles for many participants are quite clear with a manufacturer, wholesaler and retailer each serving different roles essentially describing their functions in distribution and the type of behavior that is expected of them. For example, a retailer will focus on building up an assortment of goods appropriate for the end-consumer to purchase (Alderson, 1957, 1965; Bucklin, 1965). This type of literature is highly relevant if we conceive of a humanitarian supply chain where the tasks to be carried out are very similar to those in the traditional marketing channel, albeit under different conditions. Starting with the idea of an economic function or activity that can easily be related to the efficiency and effectiveness of a humanitarian response, we may define roles as: “a role is a set of activities carried out by a firm to fulfil particular needs of a set of actors.” (Jensen, 2012, p.42.) This gives us a basic guideline when discussing the roles in the present setting.

The academia has focused on describing relationships, coordination, strategic alliances, collaboration and cooperation between the parties (i.e. Jahre and Jensen, 2010; Jensen, 2012). Furthermore the literature describes different concepts and design of supply chain to improve efficacy, to increase efficiency, to share resources and so forth (i.e. Van Wassenhove, 2006; Kovács and Tatham, 2009; Whiting and Ayala-Öström, 2009; Chandès and Pache, 2010; Scholten et al., 2010; Kovács and Tatham, 2010; Holguin-Veras et al., 2012). Larson (2012) have pinpointed that the literature is laced with concepts and techniques that could be applied for the humanitarian supply chain sector. In fact the different roles and their activities in the commercial supply chain sector cannot be fully compared with those roles and activities in the humanitarian supply chain sector. The roles and activities in the commercial supply chain are clear defined. This can be explained due to some differences between both supply chains as presented by Larson (2012),

Tomasini and Van Wassenhove (2009) or Beamon and Balcik (2008). Exemplary the commercial supply chain aims economic profit, works in uninterrupted and non-chaotic environment and the financial flow is ensured by customers. Whereas the humanitarian logistics sector seeks non-profit objectives and is dependent from donors to achieve the financial goal. In the humanitarian supply chain sector there are a high number of actors i.e. UN agencies, military, local government, affiliated government, GOs, NGOs, private companies, media as well as religious organizations with different ideologies and different mandates during in operations relief (Cozzolino, 2012; Oloruntoba and Gray, 2009). Some of the actors are mandated only for the response phase and some of the agencies have the mandate for the response as well as recovery phase; furthermore the stay of agencies during an operation relief depends on the capacity i.e. staff, in-kind donation or transportation etc. and it depends on the ability and competences (i.e. specialized for humanitarian aid in the recovery phase) of the agency in the field (Tomasini, 2012). However, “the lack of a shared profit incentive, combined with the multiplicity of actors and their diverse mandates, capacity and expertise leads to difficulties in alignment for the humanitarian supply chains.” (Tomasini, 2012).

METHOD

In this paper we aim to arrive at a basic classification of roles played by different actors when responding to disasters. This poses the challenge of having a broad enough approach to cover different types of roles in different settings and interventions, and deep enough to actually describe and obtain rich enough data to generate proposed roles in the first place. The approach taken here is primarily to use the rich sources of secondary data available through the numerous evaluation reports on major disasters. We present two case studies of the interventions responding to the Pakistan floods in 2010 and the Syria crisis to cover two large-scale interventions that involved many actors in very difficult settings, giving us a basic comparative case-study setup (Stake, 2000, Yin, 2003). Since the aim is to arrive at a first proposed role structure we judged two cases to be sufficient. Furthermore, there is substantial documentation in both cases, and there are very significant differences between the interventions which mean that there is considerable span in the issues and actors involved.

Beyond a brief description of each case setting, we focus on the actors and specific mention and examples of their activities and functions, as the basis for generating roles through our analysis, an approach which has previously been employed for a commercial setting (Jensen, 2009). Here the primary source of an overall view of the first steps of the crisis response is taken from the logistics cluster archives and USAID for the response since this covered initiation, involved actors and basic operating standards. However, more detailed activities and involved actors could be found in evaluation reports from UN bodies and many different NGOs. For the Pakistan floods approximately 20 independent evaluation reports were found. For the Syria crisis about 56 reports were found. The choice was made to focus on a selection of these for deep reading to reduce redundancy in organizations and activities listed.

For this type of study quality criteria can focus primarily on trustworthiness (Lincoln and Guba, 1985, Näslund et al., 2010), and the focus has been on triangulation of sources (that is different NGOs and different types of reports). This is especially the case with secondary data. Possible weaknesses of the data obtained is firstly that NGO evaluations have focused on evaluating the efforts of the specific NGO so that they do not necessarily give an independent view, and further that evaluations are generally funded by organizations with substantial resources. It is unlikely that

the activities of very small and local NGOs or other actors with very limited resources are well covered here, which is a limitation of the study.

EMPIRICAL

Case Description

Pakistan Floods

The Pakistan floods of 2010 were the worst for a generation and affected a total of more than 5.4 million people (USAID, 2011). Based on the evaluation reports from the Logistics Cluster and USAID a selection of organizations and activities in the Pakistan Floods response 2010 is presented: **Cluster:** Defining vulnerable populations, NGOs comment that this should lead to a more uniform definition of vulnerable populations. **Donor:** Donor consortia for certain groups of NGOs mentioned in evaluation reports i.e. American Red Cross donated \$8.2 million to meet emergency needs. The international aid was launched by Japan for emergency food assistance relief commodities, and shelter, health, and WASH services. **Logistics Cluster:** Coordination and information management activities during the response were provided. Hubs in Multan, Sukkur and Peshawar were established etc. **UN agencies: UNICEF:** Initially activities included salvaging damaged stocks of relief items since several warehouses were damaged by the flooding. **WFP:** Market and price monitoring for critical items (especially food). **NGOs/IHOs: Humanitarian Coalition (5 Canadian NGOs):** had set standards for house and shelter construction. **Catholic Relief Services:** Setting standards for house and shelter construction. Determining target (and non-target) population, with a particular focus on vulnerable groups. Building local staff capacity (in between disasters). Carried out some storage and distribution of NFIs in connection with shelters. **Samenwerkende Hulporganisaties (Cooperating Aid Organisations):** Setting operating standards in accordance with the Sphere framework. Providing training in the same standards. Coordination with the government, also coordination through an appropriate forum etc. **NDMA (Pakistan's National Disaster Management Authority):** Assessment, involvement in declaring a disaster and information management. **Military:** Transport, providing helicopters for transport service.

2011 Syria Crisis

In March 2011, the Syrian crisis started as a peaceful street protest against the Assad regime as a reaction to the 'Arab Spring' that was inspired by the fall of the Tunisian regime in early 2011. Within Syria different elements of life i.e. infrastructure, livelihoods, access to food as well as water and sanitations are affected by this protracted violence. Furthermore different hospitals within the country are out of service and the shortage of fuel is worsening in different cities of Syria. Based on the evaluation reports from the Logistics Cluster, IFRC as well as USAID following selected activities in detail and involved actors are presented as followed: **Donors:** In the Syria crisis the donors are from private sector, USAID and other IFRC agencies located in Europe Germany, Norway, Finland, Turkey as well as Canada. Further funding are exemplary done by the German Red Cross (DRK) to the Lebanese Red Cross. **Logistics Cluster:** The Logistics Cluster is responsible for a variety of activities i.e. it has organized and negotiated with military service to establish the convoy for delivering relief items inside Syria, it has provided an assessment of the storage capacities in the neighboring countries etc. **UN agencies:** The UN agencies are providing aid based on their special competencies, skills as well as expertise. For example: **WFP:** To mitigate the challenge of finding drivers willing to transport items to particular locations, the

Cluster/WFP has registered additional transport companies in Syria. **UHCR:** It has had the lead agency for the refugee response. **UNICEF and UNHCR:** They have informed participants that regarding transport via the Jordan-Syria corridor, the main challenges are customs clearance for pharmaceuticals (as the processes and requirements constantly changes). **NGOs/IHOs:** The NGOs/IHOs are faced with operational activities i.e. distributing food kits and hygiene kits, organizing local procurement or establishing warehouses. Some of the NGOs/IHOs have built partnerships to deliver different relief items to beneficiaries. Some of the NGOs/IHOs cooperate with their own national societies and use synergies. For example:

DISCUSSION

In case of disaster the intervention begins with a call by the government of the affected area that declared a state of Emergency and appealed for help from the international community, which initiated the large-scale response of the international humanitarian community. In almost all cases such a state of emergency is necessary for international NGOs to be granted access to an area, and this further opens up a set of waivers where emergency relief goods are exempt from taxation and certain customs procedures. This does however depend on there being a designated recipient in the target country.

Closely tied to the appeals and the first stages of mobilization is an assessment of the nature of the crisis. The main purpose of an assessment is to determine what type of relief will actually be required. However, there are several types of assessments carried out. The government or host country may carry out an initial assessment in order to determine if an emergency should be declared. The cluster system will typically carry out an assessment, in particular the logistics cluster will send a logistics assessment team to find particular challenges and requirements in terms of bringing in goods and equipment. The individual NGOs/IHOs may also carry out their own assessments for more limited areas, creating a substantial overlap with different assessments but where the UN/cluster assessments are often central. For example in the floods crisis it became evident that flooding in certain areas would affect others over time, allowing for slightly more time in terms of the response. However, the need for emergency aid over a long period of time was particularly challenging because of the size of the crisis. Several NGOs state that they would have had the resources to deal with a disaster in one or two regions but not in four. Certain activities recur in the NGOs/IHOs evaluations. One is the selection of the target population. The target population is a subset of those affected since NGOs/IHOs are generally not large enough to serve all areas. Further for a setting like Pakistan many NGOs/IHOs already have connections and long-term programs in certain regions making it more likely that they will serve those also in times of disaster. Compared to Syria the NGOs/IHOs did not have connections or long-term programs, therefore different tasks were challenging and complicated. Furthermore there is an additional focus on vulnerable populations, often stated as women and children, with particular challenges in a traditional society. This focus must also be seen in terms of functional specialization, for example some NGOs/IHOs focus on shelter, while others on water and sanitation. For some NGOs/IHOs in order to provide a fuller service, providing shelter is linked to water and sanitation and to a certain extent health advice. One evaluation in particular stated that the NGOs/IHOs should consider its role as providing for difficult to reach populations in inaccessible regions, and allow NGOs/IHOs with less resources and experience to deal with more accessible populations. Most NGOs/IHOs activities and much of the reporting is related to activities in the disaster area, but it is appropriate to briefly comment on both purchasing and production. Monitoring in the context refers to measuring and to a certain extent controlling the relief effort as it happens.

For example in a flooding disaster which developed over time like Pakistan in 2010 most of the NGOs/IHOs report refer to monitoring of activities after the immediate danger, such as whether displaced persons obtained access to shelter, food and medicines. Rather than focus on lessons after the disaster, monitoring should enable NGOs/IHOs to make adjustments during, and make it possible to account for use of resources (NRC report). Evaluation after the disaster in the Pakistan floods can usually be seen happening on a per NGO or NGO consortia basis. The source of data varies but tends to be interview based, either with relief workers or in some cases with affected populations. The evaluations are generally positive but point out areas for improvement, in particular related to connection to the selected population and monitoring of the relief effort as it is being provided. The latter is a particularly recurring theme and may arise from the structural difficulties of carrying out monitoring while at the same time providing relief aid in difficult conditions.

ANALYSIS

Figure 1: Main activities and responsibilities

The next and crucial step in any disaster is to find funding for the activities, and here the donors themselves are important since they can choose who or what to finance depending on their response

to appeals. Donors can be donor consortia, government donors or individual donors. Sourcing is the next step to be carried out. Depending on the nature of the crisis there are many options, from individual NGOs sourcing locally to global sourcing of standard relief items through for example the cluster system. In certain cases goods actually have to be produced, in which case commercial firms are usually the main actors. However, some NGOs do discuss whether they should control production themselves since this allows for more local involvement and control when specialized goods such as modular housing are simultaneously being produced and further developed.

Finally, transport and distribution are the activities most commonly associated with major relief operations. The transport can be partially provided by an actors such as the logistics cluster, but very often the bulk of actual transports are carried out by commercial providers. Distribution or last mile is commonly handled primarily by NGOs in direct contact with recipient populations.

We see that in a broader sense there are a number of critical roles or issues that have to be resolved for this supply chain to function properly – such as overall coordination of the provision or development of competence. The different roles derived from the figure and the cases are discussed below. The proposed roles support to provide an effective operations relief and to fulfill the need of beneficiaries in the response phase in case of disaster.

Assessment and coordination/crisis management: The overall management and coordination of an emergency response is clearly a very challenging task. The declaration of an emergency and appeal for international help is entirely up to the host government, and the host government also has the ultimate decision in terms of crisis management. However, this responsibility is somewhat theoretical in most cases. When appealing for international help there is normally a need for help with the actual coordination as well. This is seen partially through the way the cluster system is employed in both cases studied here – the logistics cluster for example has a substantial administrative role in coordinating the international crisis response – but now without the involvement of the host nation. The NGOs typically refer to coordination both with the cluster system and with the host nation or government at different levels, so we can argue that this role is commonly split between different organizations. Indeed, at the local level there are many coordination tasks that are carried out within organizations or between the organization and local population.

General small provider: An NGO which does not have a particular area of specialty or special competence but has some funding and can provide selected services to a target population, such as helping with shelter, camp management or distribution of goods. There are three different aspects of such providers. First is that their small size and relative flexibility makes it possible for them to fill certain holes in the overall provision if these can be identified – for example meeting the needs of more accessible populations so the specialists can concentrate on the more hard to reach populations. Second, they will often bring additional funding in the form of contributions from private individuals, thus enlarging the scope of the overall relief effort and providing generic resources also in terms of volunteers. Third, in many cases such a small provider is actually tied to a specific part of the population and may have some legitimacy because of this.

Central role: The central role is important to delineate and focus on the content of this role in itself. What is observed in both cases is that the central role is based on the different responsibilities and activities of the different actors as described in section. Furthermore the central role in the phase of response can be ranked. The military and the governments of the affected area are not ranked because they are the host and they have to be considered as a partner rather than to put them in a role or to rank them. The main reason for this consideration is that the host government and

military sometimes act supportive i.e. the Military has supported the transport of relief items to Syria and sometimes they hinder some activities i.e. Logistics Cluster has organized a joint humanitarian convoy to Ar-Raqa (Syria) but it was on standby due to the waiting time for receiving the letters of facilitations.

Competence development: Generally competence role means that intermediary actors should focus on providing special services and certain activities with particular efficiency. This role is based on competencies and specialized skills that are unique in their nature. Considering the activities in the field then we observe that the most of activities are special. Furthermore the different players in the field act as specialists with special skills and expertise. Here we have to consider different challenging tasks. In this case the remained employees were faced to work much more hours and managing the human resources activities i.e. recruiting and providing training to employees as well as volunteers to build logistics capacity of existing humanitarian staff in Syria.

Functional specialist: A functional specialist is perhaps the most common profile for some of the better known NGOs and UN bodies. They typically specialize in a particular area of relief work such as WASH or shelter. The advantage is similar to specialization in any area of activity – familiarity and experience with certain types of activities makes the organization more efficient. This may be due to having appropriate resources available, learning curve effects from previous engagements, or developing competence in terms of standard operating procedures and adapted equipment. The scope of such a specialist can however vary – for example MSF is well known to focus on the medical aid, but also to run its own cold chain for distribution of medicines (MSF can be categorized as an independent specialist too).

Provider of last resort: The last resort is not traditional within the humanitarian community. Indeed a formal provider of last resort role was only introduced with the cluster concept, based upon previous problems of covering all areas when organizing emergency relief. In the Pakistan floods the government was operating and functional, so that it also has a clear provider of last resort role – however this becomes a matter of definition because the scale of disaster did not allow for the local government to “plug all holes.” In this sense the cluster is the most obvious provider of last resort, but it does not have the benefit of a functional specialist. Provider of last resort must therefore always include an element of improvisation or the ability to mobilize other actors which actually have the competence required.

Transport/common service provider: The transport common service in the Pakistan floods was provided through the UNHAS for air lifts which was essential in reaching isolated populations because of the flooding. At the same time the Pakistan military had substantial assets and provided a common service as well. The challenge in coordinating two such services is that some NGOs do not want to be involved with the military. The offered solution was to use only civilian assets for those NGOs. In this sense the role as a common service provider has limitations even where advantages of scale would recommend it

In the Appendix I we introduce a table as a first draft in form of a matrix to illustrate the seven investigated roles based on the presented data in both cases such as Pakistan flood and Syrian civil war. In this matrix we do not include the host government and the host military as well as neighboring government because in all defined roles they should focus on supportive activities and determining different conditions to make the work in the affected running

CONCLUSIONS

The contribution has outlined the complexity and various roles of actors in humanitarian relief operations, exemplifying the two operations in Pakistan 2010 and Syria 2011. Based on literature review and case studies a framework for blueprint role definitions is developed for further discussion. The roles that are outlined here show that the collaboration of government institutions is missing in the two analyzed case studies - compared to Japan, where government institutions have played the dominant role. Therefore it has to be acknowledged that the investigation of the role of government and military institutions is not included here in detail because of the lack of data regarding these roles and actors.

Further research would have to establish evaluation and proof for the suggested framework in different relief cases around the world in order to check for necessary different regional, setup or item characteristics of the concept. Especially the inclusion of further actors as e.g. governments, military or also religious institutions may be crucial to achieve a generalized framework concept.

If evaluated in more detail and within different cases the proposed framework could establish a very important support for every disaster case as it may be used as a blueprint or checklist for the short-notice partner configuration (selection) as well as a backbone for the relief communications if every actor has the same “role distribution chart” based on the model framework on his desk as many discussions and communication contents may be redundant if all partners have the dedicated role distribution for a specific disaster before their eyes while working on the problem.

REFERENCES

- Akhtar, P., Marr, N. E., and Garnevskaja, E. V., (2012), "Coordination in humanitarian relief chains: chain coordinators", *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 2 No. 1, pp.85-103.
- Balcik, B. and Beamon, B. M. (2008), “Facility location in humanitarian relief”, *International Journal of Logistics*, Vol. 11 No. 2, pp. 101-121.
- Chandes, J., and Paché, G (2010), “Investigating humanitarian logistics issues: from operations management to strategic action”, *Journal of Manufacturing Technology Management*, Vol. 21 No. 3, pp. 320-340.
- Coalition, T. H. (2012), *2010 Pakistan Floods Response: Final Evaluation Report*. Ottawa, Canada: The Humanitarian Coalition.
- Cozzolino, A. (2012), *Humanitarian Logistics: Cross-sector Cooperation in Disaster Relief Management*, Springer, Heidelberg et al.
- Holguín-Veras, J., Jaller M. and Wachtendorf, T. (2012), “Comparative performance of alternative humanitarian logistics structures after the Port-au-Prince earthquake: ACEs, PIEs, and CANs”, *Transportation Research Part A*, Vol. 46, pp. 1623-1640.
- Jahre, M., and Jensen, L.M. (2010), “Coordination in humanitarian logistics through clusters”, *International Journal of Physical Distribution & Logistics Management*, Vol. 40 No. 8/9, pp. 657-674.
- Jensen, L.M. (2010), “Humanitarian cluster leads as fourth-party logistics providers”, in *Advanced Manufacturing and Sustainable Logistics*, (Eds.) Dangelmeier, W., Blecken, A., Delius, R., Klöpfer, S. *8th International Heinz Nixdorf Symposium, IHNS 2010*. Paderborn. Germany, April 21-22, 2010 Proceedings.
- Jensen, L.-M. (2009), *The Role of Intermediaries in Changing Distribution Contexts: A Study of Car Distribution*. PhD, BI Norwegian School of Management.

- Jensen, L.-M. (2012), "Humanitarian Cluster Leads: Lessons from 4PLs", *Journal of Humanitarian Logistics and Supply Chain Management*, 2, pp. 148-160.
- Kovács, G. (2011), "So where next? Developments in humanitarian logistics", in Christopher, M., Tatham, P. (Eds.) *Humanitarian Logistics: Meeting the Challenge of Preparing for and Responding to Disasters*, pp. 249-263, Philadelphia, London.
- Kovács, G. and Tatham, P. (2009), "Responding To Disruptions In The Supply Network - From Dormant To Action", *Journal of Business Logistics*, Vol. 30, No. 2, pp. 215-229.
- Larson, D. (2012), Strategic Partners and strange Bedfellows: Relationship Building in the relief Supply Chain, in Kovács and Spens (Eds.) *Relief Supply Chain Management for Disasters. Humanitarian Aid and Emergency Logistics*, Hershey.
- Lincoln, Y. S. and Guba, E. G. (1985), *Naturalistic Inquiry*, Newbury Park, Sage Publications.
- Logistics Cluster (2010), "Pakistan - Monsoon Flooding Update 3 August 2010" available at <http://logcluster.org/document/pakistan-monsoon-flooding-update-3-august-2010> adapted on (16.01.2014).
- Logistics Cluster (2014), "Meeting Minutes" and "Situation Report" available at <http://logcluster.org/ops/syr12a> (adapted on 12.12.2015).
- Merton, R. K. (1957), "The Role-Set: Problems in Sociological Theory", *The British Journal of Sociology*, 8, pp. 106-120.
- Näslund, D., Kale, R. and Paulraj, A. (2010), "Action research in supply chain management - A framework for relevant and rigorous research", *Journal of Business Logistics*, 31, pp. 331-355.
- Oloruntoba, R. and Gray, R. (2009), "Customer service in emergency relief chains", *International Journal of Physical Distribution & Logistics Management*, Vol. 39 No. 6, pp. 486-505.
- Pettit, S.J., and Beresford, A. (2005), "Emergency relief logistics: an evaluation of military, non-military and composite response models", *International Journal of Logistics: Research & Applications*, Vol. 8 No. 4, pp. 313-331.
- Scholten, S., Sharkey Scott, P. and Fynes, B. (2010), "(Le)agility in humanitarian aid (NGO) supply chains", *International Journal of Physical Distribution & Logistics Management*, Vol. 40 No. 8/9, pp. 623-635.
- Stake, R. E. (2000), "Case Studies", in Denzin and Lincoln (Eds.), *Handbook of Qualitative Research*. London: Sage Publications.
- Tomasini, R., and Van Wassenhove, L.N. (2009), "From preparedness to partnerships: case study research on humanitarian logistics in Intl. Trans.", *Operations Research*, Vol. 16, pp. 549-559.
- Tomasini, R.M. (2012), "Humanitarian Partnerships – Drivers, Facilitators, and Components: The Case of Non-Food Item Distribution in Sudan", in Kovács, G. and Spens, K. (Eds.), *Relief Supply Chain Management for Disasters. Humanitarian Aid and Emergency Logistics*, Hershey.
- USAID (2011), "Pakistan Disaster response" available at <http://www.usaid.gov/crisis/pakistan/pakistan-disaster-response-archive> (adapted on 29.01.2014).
- USAID (2014), "Syria Crisis" available at <http://www.usaid.gov/crisis/syria> (adapted on 03.01.2014).
- Van Wassenhove, L.N. (2006), "Blackett Memorial Lecture Humanitarian aid logistics: supply chain management in high gear", *Journal of the Operational Research Society*, Vol. 57, pp. 475–489.
- Whiting, M.C. and Ayala-Öström, B.E.A. (2009), "Advocacy to promote logistics in humanitarian aid", *Management Research News*, Vol. 32 No. 11, pp. 1081-1089.
- Yin, R. K. 2003. *Case Study Research: Design and Methods*, Thousand Oaks, Sage Publications.

APPENDIX I

Roles and empirical data

ROLES/ ACTORS	DONOR	MEDIA	UN LOGISTICS CLUSTER	UN AGENCIES	NGOS/IHOS
ASSESSMENT AND COORDINATION/CR ISIS MANAGEMENT	With less earmarked funding different humanitarian supply chain processes can be simplified. Coordinate the time of donation to NGOs/IHOS	Report to the community about the relief operations and their efficiency. Support in providing information about the affected people and their need. Reports about the security in the affected area. Gives an overview about the host government and the host military under consideration of the media codex	It negotiates with the military to start a convoy with relief items. It provides information about the access and infrastructure of the affected area	Market and price monitoring (i.e. WFP) lead refugee response (i.e. UHCR)	Setting standards for house and shelter construction. Working on developing a system for accountability where recipients can complain and giving information on relief as it is ongoing (i.e. Humanitarian Coalition (5 Canadian NGOs)
GENERAL SMALL PROVIDER	Mostly from the private sector that provide in-kind donations or human resources to meet the need in case of emergency. Their services and products are based on their core competence in the private sector but in the humanitarian operations relief sector		It provides RITA as a tracking and tracing system, furthermore it offers monitoring and reports about the transported relief items	Maintaining a strategic reserve of Diesel fuel (WFP)	Focus on processors of food so it can be prepared for recipients, particularly in the context of local foodstuffs and agriculture disrupted or destroyed by the disaster (processors during Pakistan operations relief)
CENTRAL ROLE	Influence the financial flow and the time of donation		Coordination of logistics capacities, NGOs/IHOS, negotiation with host government and the host military	The different UN agencies take a central role in different clusters (i.e. WASH or Logistics and Relief Commodities)	For example in Syria SARC plays a central role among the other NGOs/IHOS. I.e. A hygiene awareness campaign was conducted at the shelters where SARC has also provided waste management supplies. staff/volunteers of SARC have evacuated the Yarmouk camp and have taken the sick and wounded people to hospital and assist them to get in contact with their relatives outside the camp.
COMPETENCE DEVELOPMENT	Donation of education and training facilities.		Identifying needs for training and educating the employees of affected area	Providing training to employees of the NGOs/IHOS to build logistics capacities	Cultivating relationships between the participating organizations, local partners and communities. Setting operating standards in accordance with the Sphere framework. Providing training in the same standards. (i.e. Samenwerkende Hulporganisaties (Cooperating Aid Organizations))
FUNCTIONAL SPECIALIST	Donate driver services, customs clearance services		--		Medical specialists working from 12 already established medical centres in the Swat region (MERLIN)
PROVIDER OF LAST RESORT	--		The Logistics Cluster is responsible for a variety of activities Takes a lead for a HUB in the affected area.	--	--
TRANSPORT/ COMMON SERVICE PROVIDER	Provides human resources to support loading and unloading trucks or airplanes, donate transport services, manage and establish warehouses		Offer transport services from anywhere to inside Syria. Open warehouse facilities	Planning airlift. Establishing warehouses	Gezaeri, LTI, STC and DHL are companies that collaborate with WFP and provide transport services or supporting unloading and loading trucks or airlift