

The impossible interface?

Combining humanitarian logistics and military supply chain capabilities

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Abstract

In recent years, especially since the Boxing Day tsunami of 2004, interactions and cooperation between military forces and humanitarian aid agencies in the fields of logistics and supply chain management have experienced a slow but steady rise.

The combination of humanitarian assistance and military support is not limited to such unexpected disasters as the 2004 SE Asia tsunami, Kashmir earthquake and Hurricane Katrina (both in 2005) and the Haiti earthquake in 2010, but has also included famine relief and the mitigation of slow-onset disasters such as the Sudan drought of 1992 and the Mozambique food crisis of 2002, as well as peacekeeping operations in the former Yugoslav republic (1992–1995) and (to a limited degree) even joint operations in active war zones such as Afghanistan and Iraq.

Furthermore, there can be no doubt that the amalgamation of humanitarian logistics expertise and military capacities, often in the areas of transportation (especially air lift) and security, has helped to save lives and reduce human suffering.

Why then, are these interactions not more common?

This chapter considers some of the factors influencing the cooperation, or lack thereof, between humanitarian aid agencies and armed forces and aims to provide an explanation for the absence of mutual support as well as some recommendations for donor agencies, armed forces and the humanitarian non-governmental organizations themselves.

Introduction

When Bernard Couchner and a small group of 'renegade' doctors from the Red Cross founded Médecins sans Frontières (MSF) in 1971, logistics was not at the forefront of their minds. Those were the days of the Biafra War, now a long forgotten bloodbath in what was then still commonly regarded as the heart of darkness, a fever-ridden cesspit at the end of the world that very few knew anything about and (almost) nobody cared. For those French doctors and nurses the treatment of civilians caught between the front-lines was the overriding priority; 'témoignage', the speaking out loud of abuse, rape and murder of innocents, a desperate shout to help the helpless; and drugs and medical supplies were something you begged, borrowed or scratched together from whatever could be found wherever. Antibiotics had to be bought from dubious sources, were donated by sympathetic embassy staff or the odd journalist passing through, and a (constantly interrupted) supply chain was managed by 'the donor community' of families, friends and contacts back home in Europe.

Today MSF is one of the largest and most respected international humanitarian aid agencies; a true 'global player' operating on an annual budget of over €600 million, with over 26,000 staff on the payroll and working simultaneously in more than 65 countries around the world. The organization received the Nobel Peace Prize 1999 in recognition of its pioneering humanitarian work on several continents.

Its logistic departments are managed by dedicated and experienced professionals. Central warehouses together with pre-positioned units around the globe make it possible to respond to almost any humanitarian crisis within hours. Often credited with the invention of pre-packed, customs cleared, self-containing modules for field hospitals, water treatment and the containment of epidemic diseases, the MSF supply chain is among the most agile in the humanitarian aid scene and has been copied by various other non-governmental organizations (NGOs) over the years. It is characterized by standing agreements with a variety of suppliers and charter transportation agencies, as well as relatively sophisticated information technology (IT) and communication networks. All MSF's equipment is tested and standardized;

ensuring that staff members, no matter if in Sierra Leone or Sri Lanka, know what to expect. This reflects MSF's commitment to provide regular training for field logisticians, as well as for logistic coordinators and procurement specialists at headquarter levels.

MSF is, of course, not the only NGO. Long and Wood (1995) counted over 100 major relief agencies worldwide, each with an annual budget over US\$1 million; Cross (2003) saw over 1,500 international NGOs registered as observers with the UN while, according to Thomas and Kopczak (2005), the top 10 aid agencies had a combined budget of more than US\$14 billion in 2004. Although an absolute figure is not available, it was estimated in 2000 that there were over 30,000 NGOs operating worldwide (Roberts, 2001: 73) ranging from large and very influential international humanitarian aid organizations such as MSF, Oxfam and Save the Children to small, local groups who 'send a cow' (Cross, 2003) into a disaster area.

Apart from local, national and international NGOs, other players also influence the field of humanitarian assistance and, without doubt, one of the most important organizations is the International Red Cross and Red Crescent Movement.

With national societies in over 180 nations and an annual budget exceeding US\$1 billion, 'the Red Cross' (as it is commonly known) fields fleets of trucks and aircraft, operates complex supply chains and employs several thousand staff in logistics, supply chain and procurement roles worldwide.

Meanwhile, the United Nations' World Food Programme (WFP) is 'the largest humanitarian logistics operator by far. On any day it has 40 ships on the seas, 20 planes in the air, 1000 trucks on the ground' (Van Wassenhove, 2006: 488). In addition to its large array of physical assets, transport and storage capacity, WFP is also the principal agency for the United Nations in its role as the lead for the logistics cluster – an approach that aims to achieve improved effectiveness and efficiency across the UN 'family' and beyond.

Humanitarian and military logistics

Humanitarian logistics can be defined as:

the process of planning, implementing and controlling the efficient, cost-effective flow and storage of goods and materials, as well as related information, from the point of origin to the point of consumption for the purpose of alleviating the suffering of vulnerable people. The function encompasses a range of activities, including preparedness, planning, procurement, transport, warehousing, tracking and tracing and customs clearance. (Thomas and Kopczak, 2005: 2)

Humanitarian supply chain managers such as the heads of logistic departments at several international NGOs (Gustavsson, 2003; Rickard, 2003; Chaikin, 2003), as well as academics and researchers (Van Wassenhove,

2006; Pettit and Beresford, 2005; Beamon and Kotleba, 2006; Kovács and Spens, 2007) have argued over a number of years for improvements in specialized logistics training, better use of technology, increased inter-organizational cooperation, development of specific IT solutions and integrated logistics systems, as well as more coordination of activities. But, as one observer remarked: 'in many cases, aid organisation logistical structures are still in their infancy' and 'logistics activities have, up until recently, been undertaken in a fragmented and sub-optimized manner and based upon outdated logistics philosophies' (Antill, 2001).

Furthermore, the director in charge of the emergency response and disaster mitigation unit of an international NGO concluded that:

Very little capital (from any source) has been invested in the development and implementation of modern management information systems (MIS), information technology (IT) or logistics systems. Most NGOs lack modern 'systems capacity' in just about any category. Most NGOs have indeed also undervalued the role of logistics, supply chain management and integrated systems support. (Gustavsson, 2003: 7)

All humanitarian aid organizations are, to varying degrees limited, by the funding available to them (be it from private donors, governments or multinational bodies such as the UN or the European Community), and investment in solid logistics capabilities is, in many cases, still seen to be a relatively low priority even though efficient logistics and supply chain management is emerging as not only necessary, but absolutely crucial, for the success of humanitarian aid operations.

This relatively depressing picture of the perceived importance of logistics can usefully be compared to that in the military field where commanders have long understood its vital importance in underpinning the operational capabilities of their armies and, hence, the extent that supply chains influence the capacity to conduct and sustain warfare. Indeed, the word 'logistics' is thought by many to be derived from the French term 'logistique' that was used by military theorists during the 1800s to describe the provisioning of an army and the movement of required materiel (Thompson, 1996; Sinclair, 1996; Roth, 1999; Prebilic, 2006).

Thus, unlike many humanitarian NGOs, modern western armies integrate supply chain preparations from the very first stage of their operational planning and will not (and, in reality, cannot) deploy without solid logistics backup. As a result, the military asset base includes large numbers of trained specialist personnel; an air, sea road (and, to a limited extent, rail) transportation capacity on a scale that no aid agency can match; associated loading/unloading equipment; mobile storage and repair facilities; and sophisticated communications systems as well as the technicians to maintain all of this.

With these introductory thoughts in mind, and the clear potential benefit that interaction might bring, the question raised in the abstract of this

chapter is reiterated – why is the engagement between militaries and aid agencies not much more common?

Humanitarian principles and ideology

While aid agencies are sometimes specified according to their main field of activity (such as medical, water and sanitation or food distribution), academics have recently tried to group these organizations according to their ideological roots (Tomasini and Van Wassenhove, 2009). This approach distinguishes between faith-based organizations, 'Dunanists' and 'Wilsonians'. Leaving faith-based organizations to one side for the moment, a brief exploration of the other two concepts is useful as it is a clear pointer that will help determine the likelihood of a specific organization's willingness to cooperate with armed forces in a joint supply chain operation during a humanitarian crisis.

Dunanists encompass humanitarian organizations for which the principles and guidelines of Jean Henri Dunant (the founder of the Red Cross movement in the nineteenth century) have overriding priority. Apart from the Federation and the Committee of the Red Cross and Red Crescent, this group also includes MSF, Action against Hunger, Oxfam and Save the Children.

By contrast, Tomasini and Van Wassenhove (2009: 24) argue that Wilsonians (so-named after the US American president Woodrow Wilson) try to 'project US values and influence as a force for good in the world', leading to 'a built-in conflict of interest depending on how much their ideologies influence their agenda'.

That said, all humanitarian aid organizations follow, to varying degrees, four basic principles of action: humanity, neutrality, impartiality and independence:

- Humanity aims to deliver assistance without discrimination.
- Neutrality refers to the provision of aid without taking sides in a conflict.
- Impartiality implies that action is based on needs alone.
- Independence serves to separate the distribution of aid from political, economical, military or other objectives.

Smith (2007) called these principles the basic 'rules of engagement' for NGOs, providing them with a mandate and framework of references under which to operate, as well as influencing the degree of cooperation with other actors such as governments, military organizations or religious institutions.

However, during the last decade there has been increasing pressure and expectations on international NGOs to cooperate with the military

emanating from multinational donor coordination agencies such as ECHO (the European Community's Humanitarian Aid Office) and the United Nation's OCHA (Office for the Coordination of Humanitarian Affairs). Indeed, arguably, much of the slow growth in 'joint operations' between humanitarian NGOs and military organizations can be attributed to this pressure, rather than to a genuine recognition by aid organizations of the benefits of cooperation.

Thus, while there is increasing pressure to cooperate more closely with military forces, humanitarian aid organizations fear most of all the loss of neutrality, impartiality and independence that they believe would result from being associated with Western military units and their associated political agenda. For example, Pettit and Beresford (2005: 320) observed that: 'the involvement of the military in the provision of humanitarian aid (HA) is seen by many NGOs as being likely to compromise their neutrality.'

As convincing demonstrations of neutrality, impartiality and independence from government agendas are exactly the requirements that enable humanitarian aid agencies to achieve access and assistance to vulnerable populations in the first place, the loss of these attributes strips away the only protection humanitarian aid workers have in, above all, zones of armed conflict.

In order to fulfil their mission, especially in such warzones, humanitarian NGOs need to be perceived by all factions involved in an armed struggle to be neutral and not taking sides in a conflict. Yet by becoming associated with peacekeeping forces and military organizations through cooperation in humanitarian aid projects, the four fundamental principles of humanitarian assistance seem to become meaningless. This point is reinforced by General Tim Cross who, writing about his experiences in Kosovo, commented that: 'State focused, with legitimacy coming from the state, the military are, by definition, political servants and are neither neutral, impartial, nor independent' (Cross, 2003: 204).

A similar point is made by Harmer (2008: 528) who suggested that:

Concerned with overly close association with political and military objectives, humanitarians argue that integrated mission structures threaten to undermine the neutrality and independence of humanitarian action by creating the perception (and possibly constructing a reality) that humanitarian efforts are being subordinated to the political and security goals of UN missions.

Furthermore, Cross (2003: 214) also advised that:

The NGO community is not only ignorant of the military but have ingrained suspicions – usually seeing the humanitarian world as their province, an area where only they have the necessary experience to make a difference; they too often regard the military as amateurish and even dangerously incompetent.

From all the above, it should be clear that Dunanists (as well as Wilsonians and faith-based organizations), struggle with balancing their mandate to, on the one hand, assist the victims of disasters and warfare as effectively and efficiently as possible (for example by using military airlift capacity

to reach an area of humanitarian operations that might otherwise not be easily accessible) and, on the other, their 'rules of engagement' based on the ultimate principles of humanitarian assistance as their principal *raison d'être*.

A strategic-level decision

In principle, the decision of an international humanitarian aid agency to cooperate or not with military forces will be made by a board of directors at a headquarters far removed from 'ground zero'. Such decision-makers, typically with backgrounds in medicine, social science, international law or development studies, and often with many years of previous experience as a 'head of mission' or 'country manager', are usually elected by a general assembly composed of all members of the organization in a process of grassroots democracy. Significantly absent from the major humanitarian aid agencies and international NGOs are directors with a previous service career in the armed forces... as well as logisticians and supply chain managers. Therefore, balancing issues such as the impact on aid appeals, donor expectations, political circumstances and the history and mission of their own organization, the board will make a decision if, where, when, and how they will cooperate with a particular country's armed forces.

For military commanders in-country it is important to understand that an international NGO's decision to cooperate or not does not rest with the head of mission in the country where the humanitarian crisis is taking place. This is true even though, unlike their military counterparts, the leaders of humanitarian missions are usually given much more operational autonomy over how to achieve their assignment objectives. Rather, such decisions are very much the province of the board of directors (or their equivalent) based in the HQ away from the immediate pressures of the disaster/emergency.

The implication of this is that attempts to achieve policy changes (be this by donors or military organizations) will need to be directed at the strategic decision-making level of humanitarian aid organizations, not their tactical or operational representatives.

It should also be understood that such policy-based decisions are fluid and constantly debated within humanitarian aid organizations. Thus, a seemingly minor change or reshuffling within the board of directors can sometimes lead to dramatic changes in policies regarding the cooperation (or lack thereof) with the military. While the overall direction is likely to be determined by the broader history of the organization and its Dunanist or Wilsonian roots, the reality is that decisions regarding humanitarian-military joint operations during a specific crisis are often based on previous experience with armed forces during a comparable situation as well as the impact of the disaster or complex emergency itself.

Military involvement in disaster relief phases

Disasters are subject not only to the dynamics of knowledge but also distance, criticality and time pressure during both the planning and response phases. There are three key elements: preparedness, response and recovery which cannot be directly associated with specific time periods, but all are consistently part of the preparation–reaction process (Kovács and Spens, 2007). The nature of the disaster relief activities differs not only across these different types of disasters, but also with respect to the duration of disaster relief programme. A generic differentiation can, therefore, be made between long-lasting events that are characterized by continuous aid work (eg famine relief), and disasters in which initial problems can be overcome in relatively short order (Kovács and Spens, 2007). Within the literature (Kovács and Spens, 2007; Listou, 2008; Jahre *et al.*, 2009; Heaslip *et al.*, 2012) there is agreement that different humanitarian relief operations can be distinguished in the times before a disaster strikes (the preparation phase), instantly after a disaster (the immediate response phase) and in the aftermath of a disaster (the reconstruction phase). Not surprisingly, different logistical requirements, as well as resources and skills, are needed for each of these three distinct phases of disaster relief.

Preparation

Preparedness supply chain requirements lie mainly in the ‘assessment and planning’ component of the humanitarian supply chain including elements of procurement, warehousing and transport and will depend, at least in part, on whether pre-positioning strategies are used or not. Approaches to procurement can include the use of contracts and ‘framework agreements’ with local and international suppliers for key relief items that can drastically simplify the procurement process in the initial phase (Ertem *et al.*, 2010). ‘Postponement’ through such agreements can provide ‘demand-led inventory management’ that enables ‘the assignment of relief supplies to be as rapid as appropriate’ and which, in turn, reduces the need for excessive pre-positioning of inventory. An ‘auction’-based strategy where the suppliers are the bidders and the auctioneer represents a ‘humanitarian aid coordinating platform’, for example, the United Nations World Food Programme (WFP) Logistics Cluster, may promote the procurement and allocation of resources to those agencies that can more effectively distribute the aid (Ertem and Buyurgan, 2011).

Military procurement requirements are, however, defined both in terms of what is to be developed and produced, and the manner in which the procurement efforts are distributed among research and development, production and support communities (Pettit and Beresford, 2005). Clearly, not least as

procurement budgets are limited, a preference for a certain type of weapon or for a specific phase of procurement has some trade-offs in terms of the direction and scope of military preparations. One such trade-off is between military readiness and long-term economic efficiency. For example, the production of a large variety of weapon systems, intended to enhance preparedness against a wide spectrum of threats, would normally preclude the possibility of achieving economics of scale. Additionally, the production of a large stock of spare parts raises inventory costs. Another trade-off concerns the zero-sum relations between different stages of procurement. Investing more resources in research and development leaves fewer resources for production and support.

The WFP is the largest humanitarian logistics operator as well as being the logistics lead within the UN’s ‘cluster’ (Van Wassenhove, 2006). In this capacity, its globally located warehouses are shared with other NGOs for inventory storage in a way that is similar to the use by allied military of collaborative logistical support units that are also located worldwide. However, what is missing to date is a general system of collaborative civil–military global warehousing – albeit civil–military joint support services and warehousing are found in some provinces in Afghanistan (Listou, 2008).

Immediate response

The nature of a particular disaster or emergency largely determines the form of the response and the mix of military and non-military resource allocation. (Pettit and Beresford, 2005: 314).

According to Chandes and Paché (2009), the participation of the military in humanitarian operations can be considered positive because there is no single organization with the ability or competence to solve every problem generated in an emergency situation. Pettit and Beresford (2005) also analyse a humanitarian logistics framework combining military and NGO experience in cases of disaster relief and recovery. Military support for natural disasters is widely used due to the capacity and asset availability required to support the surge demands (Rietjens *et al.*, 2007). Military organizations have the robustness to operate in harsh field conditions and are capable of 12-hour response operations on a large scale (Kovács and Tatham, 2009). The structured command and control systems coupled with appropriate asset capabilities that sustain the military personnel are not found in most NGOs or IOs.

Reconstruction

Reconstruction activities aim to bring the emergency under control such that the affected population is capable of resuming responsibility, all systems

are returned to a normal or better state, and communities are returned to their pre-disaster conditions (including livelihood, homes and infrastructure) (Campbell and Jones, 2011). Reconstruction supply chain requirements draw equally on all humanitarian supply chain elements; though the urgency and volume of product flow is generally lower than during the initial response. Once disaster operations have reduced, supply chains should either be terminated or transferred (Maon *et al.*, 2009).

This phase sees the shift in focus from speed to cost reduction, with reconstruction's objective being 'costs saved means more lives helped' (Cozzolino *et al.*, 2012: 21). Collaboration is essential during this phase, particularly when considering that funding lines and resources will become harder to secure (Kovács and Tatham, 2009). During the post disaster reconstruction and rehabilitation phase of a disaster response, logistic needs shift to support rehabilitation and long-term recovery.

Military actors are increasingly expanding their role into this sector. The Australian Army's Adaptive Army concept, for example, identifies 'Population Support' as one of the five lines of operation that will be pursued to account for the future operating environment (Australian Army, 2009: 52). Land Force logistic capacity forms an important component of this line of operation, particularly in the delivery of aid to remote and austere locations within a joint force area of operations (Australian Army, 2009). In the United Kingdom, when the military becomes involved in humanitarian assistance of a sustained nature this is referred to as peace support operations (Rietjens *et al.*, 2007, Heaslip *et al.*, 2012). In the United States, these missions are referred to as complex contingency operations (United States Department of Defense, 2008).

Collaboration

The literature associated with collaboration in humanitarian supply chains is just emerging (McLachlin and Larson, 2011). Besides the civil military collaborative discussions the humanitarian supply chain literature has concentrated on coordination in relief chains (Akhtar *et al.*, 2012); prepositioning and preparedness collaborative efforts by suppliers (Campbell and Jones, 2011); coordination of relief efforts (Hicks and Pappas, 2006); and case studies such as the Indonesian relief efforts (Volz, 2005).

Collaboration can take place at different stages along the relief chain (Oloruntoba and Gray, 2006), such as during contingency planning, need assessment, appeals, transportation management, or last-mile distribution (Kovács and Spens, 2007). While collaboration during an actual disaster (Kovács and Tatham, 2009), especially at field level, seems to be more common, and has been enhanced through the setup of the UN Joint Logistics Centre (Jahre and Jensen, 2010), there is a specific need for better, continuing collaboration after an operation, in preparation for the next one (Heaslip *et al.*, 2012).

Attached to these practices are standing offer arrangements and collaborative procurement strategies. Procurement efficiencies and synergies can be gained by effectively coordinating supplier-buyer alliances, continuous replenishment, vendor management and consignment (Balcik *et al.*, 2010). Transportation in humanitarian relief operations is, due to prohibitive costs (Pedraza *et al.*, 2011), often outsourced in collaborative arrangements with specialized commercial companies (Balcik *et al.*, 2010). As such, agencies must consider outsourcing (contracting assets, hiring local fleets or contracting third party logistics (3PL) providers) or collaborating (working with other agencies to own, hire or contract assets). Organizations with their own fleets or specific lease arrangements, will pursue either a centralized (fleets are managed centrally from their HQs, like the International Committee of the Red Cross (ICRC)'s Fleet Management Unit); hybrid (management is shared between regional and national offices, like the International Federation of Red Cross and Red Crescent Societies (IFRC) and the WFP); or decentralized fleet management strategy (managed in-country like World Vision International (WVI)) (Pedraza *et al.*, 2011).

The joint logistics and supply chain interface: function defines form?

The challenge of achieving civil-military engagement in the context of a complex emergency (such as Afghanistan) is unquestionably more difficult than in response to a natural disaster (such as Haiti) (Rietjens *et al.*, 2007; Kovács and Tatham, 2009; Balcik *et al.*, 2010; Heaslip, 2011; Cross, 2012).

Assuming that a humanitarian aid NGO is, indeed, willing to cooperate with the military, what form is the logistic and supply chain interface between the two parties likely to take?

Pettit and Beresford (2005: 314) concluded that this very much depends on the specific type of crisis-scenario the two actors will face:

The nature of a particular disaster or emergency largely determines the form of the response and the mix of military and non-military resource allocation.

With this in mind, five broad types of operations can be distinguished: rapid-onset natural disasters, slow-onset natural disasters and famine relief, development programmes, peacekeeping missions and active warzones; each of which will be briefly discussed.

Natural disasters

The term rapid-onset natural disaster encompasses phenomena such as floods, earthquakes, volcano eruptions, large-scale fires, storms, tsunamis and avalanches. These catastrophic events usually take place suddenly and with little warning and, as a result, the affected population will often be

forced to leave the disaster area in great haste and with few possessions. Infrastructure, electricity supply and telecommunication networks will be severely damaged, and access to the area restricted by obstacles.

The first response to such emergencies after an initial assessment typically consists of the installation of reception areas for displaced people in a safe zone, screening and registering of survivors, provision of first aid and medical support, shelter, food rations, potable water and sanitary installations.

In this regard, a field manual for United Nations Disaster Assessment and Coordination staff states that:

The logistical responses in an emergency may be divided into providing for limited needs, such as providing critical medical items, communications equipment, repair items for water supply, sanitation, electrical power, etc., and moving bulk commodities, such as food and shelter or even peoples themselves. It is important to bear in mind that there are a number of other factors that pose constraints on logistics, such as pre-existing logistics infrastructure, political factors, the sheer number of humanitarian actors, the damage caused by the disaster, and sometimes the security environment. (UNDAC, 2006: 372)

It will be readily appreciated that time is the most critical factor under these circumstances and, in order to establish a supply chain for humanitarian aid as quickly as possible, good communications are a must. As Long and Wood (1995: 216) noted:

Communications and information systems are of critical importance in controlling the relief operation, especially in emergency situations.

And the director of an emergency response unit agreed that:

Communication systems are not a core strength for the humanitarian community yet are a critical part of humanitarian operations. In crisis situations, communication... is vital.' (Gustavsson, 2003: 7)

As discussed in Chapter 4 of this book, the dependence on real-time communications and data transfer has become even more important with the recent introduction of specialized software for humanitarian supply chain management, including track-and-trace capabilities for relief commodities from suppliers all the way to the victims of a disaster. Examples of such specialized IT platforms currently include the Humanitarian Logistics Software (HELIOS/HLS) developed by the San Francisco-based Fritz Institute which has been implemented by the International Federation of the Red Cross, the United Nations Logistics Support System (LSS), Compass – a commodity tracking system used by the World Food Programme, Logisticx9 – a fourth generation supply chain software developed in-house by MSF, and SUMA (Supply Management) – a regional Latin American platform supported by the World Health Organization.

As previously mentioned, a number of international NGOs specialize in responding to short-notice crises and have rapid-deployment teams, pre-packed emergency kits in regional warehouses, communications equipment like satellite-telephones and stand-by transport arrangements with

air-charter providers available. They are able to mobilize quickly and deploy to any disaster area worldwide within 48 to 72 hours (Chaikin, 2003), but often face the obstacle of the 'last mile problem' (Gustavsson, 2003; Kovács and Spens, 2007). For example, many areas where parts of the affected population have sought shelter might initially not be accessible other than by helicopter. Similarly, damage to infrastructure such as airports, harbours, roads and bridges might well prevent the delivery of aid from the nearest storage area to the final distribution points as was clearly the case in the 2010 Haiti earthquake. In addition, national 'chapters' of aid organizations (such as the national Red Cross/Red Crescent society) or other NGOs are likely to be affected by the disaster itself and are, initially, unable to operate at full capacity.

Under such conditions national governments often tend to mobilize their armed forces to assist. Equipped with assets such as transport aeroplanes, helicopters, communications equipment, trucks and heavy construction equipment (such as bulldozers and cranes), as well as the personnel trained to operate and repair them, modern armies have successfully repaired infrastructure and reopened access to disaster areas. Examples include the tsunami on Boxing Day 2004, Hurricane Katrina in August 2005 and the earthquake in Kashmir in October 2005.

Thus, as noted by Cuny (1989: 5):

Civilian authorities turn to the military for help in humanitarian operations for several reasons, amongst which the most obvious may be their physical assets. The military is often regarded as a cornucopia of assistance. Amongst the most sought-after assets are transport (land, sea and air); fuel; communications; commodities including food, building supplies and medicines; tools and equipment; manpower; technical assistance (especially logistics and communications) and facilities.

Under the typical scenario outlined above, it is highly likely that there will be relatively few issues of principle between humanitarian NGOs and military organizations, with the result that logistics and engineering staff from both communities will work side-by-side.

This kind of cooperation is also likely to be less of an issue for national NGOs who wish to coordinate their emergency supply chain with the national military, as staff of both such organizations will already share the same language and cultural background. As an example, Oxfam Australia have developed close ties with the Australian Defence Force in respect of the transport of emergency relief kits to the Pacific islands in the event of a natural disaster there. Similarly, Wilsonian US-American NGOs such as CARE and IRC, who accept a majority of their funding from government sources (Lischer, 2007), seem to welcome cooperation with the US Army in the case of natural disasters.

On the other hand, although some international NGOs tend to accept a limited degree of cooperation with the armed forces under these circumstances – as long as the same forces were not engaged in (civil-)

warfare or the suppression of humanitarian rights before the catastrophe – others reject such proposals outright. NGOs in the latter camp fear that the negative impact of even a limited affiliation with any military organization will far outweigh the short-term benefits of joint operations. This position is mainly shared among the largest and most influential Western NGOs, such as MSF, Oxfam and Save the Children.

Interestingly, these same organizations are also the ones that currently have the most sophisticated humanitarian logistics systems in place and provide ongoing training for their supply chain staff. It seems that, as a rule of thumb, the more comfortable a Western humanitarian aid agency feels about the reliability of its private funding sources, as well as its logistics and supply chain capabilities, the less likely it will be to cooperate with military organizations.

Such large international NGOs often have sufficient funds available to be able to, for example, charter commercial aircraft rather than opting to use military airlift capacities until such time as UN transport assets (or organizations such as AirServ or Aviation sans Frontières that specialize in provision of air transport for other NGOs) become available. That said, a remarkable exception occurred in the immediate aftermath of the Kashmir earthquake 2005 when, for a short time, MSF accepted US Army military airlift capacity in order to drop emergency response personnel and supplies by helicopter. This decision was, however, hotly debated in MSF circles and it seems unlikely that it will be accepted as a precedent for further cooperation.

Famine relief

Whereas sudden-onset natural disasters can be typified by their unexpected nature, famines, and especially environmental famines (in contrast to political famines where the withholding of food serves as a weapon), tend to be easier to predict. It follows that the preparation and response time available to the humanitarian community is much longer. Furthermore, with satellite imagery and a wide range of environmental data sources at their disposal, organizations such as WFP are nowadays often able to predict areas of famine two to three months in advance and act accordingly. On the other hand, the prescient observation by Long and Wood (1995: 217) that 'Crop shortfalls can be predicted with some accuracy, although whether the area's political and economic system can, and will, function to address the problem is a different question' remains as valid as when stated nearly two decades ago.

It also follows that with less time pressure on aid agencies to react to a famine, the potential for military involvement in the relief effort depends largely on the political situation in the larger geographical area. Thus, in collaboration with WFP and some international NGOs, armed forces have been deployed in the past to assist with the air transportation of food and provision of security for warehouses and storage areas. Examples include Somalia, Eritrea and Sudan, where the deployment of (Western) military organizations was largely based on a hope of 'bringing stability to an

unstable region'. However, experience has since shown that not only was this optimism largely misplaced, but also that the utilization of military assets alone does not, of itself, lead to success:

For example, a number of specialists have pointed out that the use of military aircraft to deliver food in Sudan in 1985 delayed vital decisions on alternative methods and obscured the fact that there was no onward delivery system from the airports out to the rural population. (Cuny, 1989: 3)

Thus, while purely environmental famine relief operations by humanitarian actors such as took place in Mozambique in 1992 have a relatively good chance of success, when the disaster is aggravated by political and military considerations, the outcome is less certain. For example, South Sudan has seen the intersection of a political famine, peacekeeping operations, and the participation of outside military forces in the relief effort. Consequently the humanitarian dilemma such an armed intervention poses for international NGOs, increases.

Development programmes

This type of humanitarian aid programme is very different to natural disasters. Two main factors that are prevalent in the aftermath of a natural disaster, namely time pressure and large-scale population movements, are absent in development programmes – albeit some degradation of the infrastructure might be present. Also, development programmes normally take place in a relatively secure environment with few threats to aid agency staff. NGOs working in these kinds of projects tend to be on the ground for a considerable period of time (often years or even decades) and, as a result, are able to develop close ties with their local staff, giving them an advantage in terms of language and cultural aspects. Typical activities include the rebuilding or rehabilitation of infrastructure such as roads, bridges, schools, hospitals and water supplies, agriculture development projects, strengthening of public healthcare systems, and education programmes.

In short, with the absence of access restrictions, insecurity and time pressure, there are very few reasons for military forces to be involved in this type of project. Civilian contractors are better suited to provide transportation as well as logistic services and NGOs usually have enough time to set up and manage their humanitarian supply chains.

Peacekeeping operations

Peacekeeping operations, sometimes also called 'operations other than war' or 'peace support missions' by the British armed forces, 'complex contingency operations' or 'stability, security, transition and reconstruction operations' by the US military, and 'peace-building operations' by the Australian Defence Forces (Pettit and Beresford, 2005; Ellsworth, 2006; Smith, 2007) are very complex in nature and the failure of the military forces assigned

to this role can easily lead to tragedy, as the massacres in Rwanda in 1994 and Bosnia in 1995 have shown. NGO involvement in this type of mission often consists of the delivery of humanitarian aid to civilians caught in the conflict or displaced by fighting. Coordination of the relief effort is normally provided through a joint civilian–military agency, such as NATO's CIMIC (Civilian–Military Coordination), in association with UN OCHA staff.

Operational cooperation between NGOs and military peacekeeping forces is frequently centred on convoy protection and securing areas in which NGOs can operate (Gourlay, 2000). Providing transport, mainly by air and road; information about access restrictions and security threats such as landmines; infrastructure repair (especially of bridges); the set-up of refugee camps, including water distribution points and sanitation facilities; food distribution, and the provision of aerial photography are the main points of interface between peacekeepers and aid organizations (Cuny, 1989; Antill, 2001; Cross, 2003; Wieloch, 2003; Pettit and Beresford, 2005).

In terms of supply chain activities, the temporary storage and subsequent transport of relief items from forward bases to final distribution points often provides the link between humanitarian aid logisticians and uniformed transportation specialists. Nevertheless, there are also a number of reasons why some NGOs will not want to cooperate with the military in this type of operation, as Cross (2003) has shown.

In short, these can be summarized as: a loss of neutrality (and therefore an increased security threat), media profile and/or independence; military security paranoia hindering the two-way transfer of information; a certain obsession on the part of the armed forces with self-protection and exit strategies (as well as arriving too late and leaving too early); the subordination of the humanitarian task to the military mission; and, finally, a lack of understanding by the military of aid work as well as an over-inflated view of their own humanitarian capabilities.

Active war zones

Currently, Iraq and Afghanistan are prime examples of the almost total absence of cooperation between international NGOs and the armed forces of the Western coalition. The reason goes back to the four key NGO principles described above and, as a result, commentators such as Lischer (2007: 23) have observed that:

military use of quasi-humanitarian 'hearts and minds' operations undermined security and alienated aid organizations.

Even the British NGO-Military Contact Group (2009: 5) concluded that in both countries:

humanitarian action – saving and protecting the lives of civilians caught up in conflict – can and should be kept separate from the objectives of stabilization operations.

Furthermore, the same organization (2009: 3) has admitted that:

one person's stabilization is another person's war.

Put simply, influential Western NGOs such as MSF, Oxfam and Save the Children have decided not to work together with Western coalition forces in these kinds of operations, as they feel that their humanitarian agenda is incompatible with such cooperation. Understandably, putting aside arguments of principle, security concerns for staff (both national and international) were paramount in this decision (Lischer, 2007; Harmer, 2008).

Thus, while willing to coordinate their humanitarian aid programmes through UN-OCHA to at least some degree, such international NGOs have strictly refused to participate in NATO's CIMIC (Civil–Military Cooperation) contact group. In this scenario, therefore, the opportunity for a successful cooperation between humanitarian and military personnel regarding a joint logistic and supply chain interface must currently be rated as practically non-existent.

Recommendations

This chapter has provided a brief overview of the current position and potential areas of development in relation to combined operations of humanitarian aid logisticians and military supply chain specialists. In doing so, it has highlighted the relatively limited common ground, and offered a perspective on the strategic-level decision-making processes within humanitarian aid organizations and NGOs. It has underlined the importance of the history, background and self-understanding of these actors in providing a framework of options.

That said, the perspective adopted by a particular NGO is likely to reflect the specific nature of a disaster situation and its wider context.

With this in mind, and also in light of the opening remarks in this chapter that outlined the enormous potential contribution that military logistics organizations could bring to bear (in terms of their equipment, trained personnel and speed of response), a number of suggestions for improving the humanitarian/military interface are offered.

Recommendation for donor agencies

To the extent that an improved humanitarian/military interface is perceived to be beneficial from the perspective of those affected by a disaster or emergency, there would seem to be a strong case for donor organizations (such as ECHO) to provide special funding to humanitarian aid organizations who are prepared to interface their logistic operations with military supply chains.

This would help overcome one of the biggest current obstacles for cooperation, which is a lack of knowledge within humanitarian NGOs about procedures and operational flows inside military supply chains and vice versa. Thus such funds would enable improved communication and mutual understanding to be developed through the medium of conferences, coordination and joint training exercises, scenario planning and academic research. Obviously, this should take place prior to a disaster/emergency rather than in the frenetic aftermath, which is not the time at which to attempt to develop the required respect and appreciation of the other's point of view and underlying rationale.

Recommendation for humanitarian aid groups and NGOs

Given that many, particularly Western, military forces have an enviable reputation for providing efficient and effective logistic support, serious consideration should be given to the recruitment into NGOs of former military specialists as logistic coordinators and trainers where they can bring their undoubted expertise of managing what are often equally ad hoc supply networks to bear. They would also be in a position to explain how such military supply chains work, their strengths and weaknesses, and the most appropriate means of interfacing with them.

Recommendation for military organizations

Self-evidently, the military should attempt to follow the reverse prescription to that outlined above and establish prior contact and obtain information about humanitarian logistics operations and supply chains, especially in the immediate emergency phase after a large-scale sudden-onset natural disaster.

Rightly or wrongly, military supply chains have a reputation for being inflexible and process-driven – however, the perceived wisdom from the NGO community is that there is a huge benefit in operating as flexibly as possible within the overall organizational mandate. Thus, attempts to shoe-horn NGOs into a pre-existing military logistic framework or approach are likely to be rebuffed and fail. So, military logistic organizations must learn to be flexible in such disaster/emergency responses and embrace the unexpected wholeheartedly, keeping the fate of the end-beneficiaries constantly in mind.

It is also important to appreciate that there is a cost to developing and maintaining the interface with humanitarian organizations. This will almost certainly require additional resources and specialist knowledge.

Inter-agency cooperation

While the military have a very clear idea of what is meant by levels of strategic, operational and tactical planning, this is not necessarily true of the aid community (Rietjens *et al.*, 2007; Kovács and Tatham, 2009). One reason

for this is that the use of relatively flat organizational structures in the aid community does not promote hierarchical management as in the military (Van Wassenhove, 2006). An innovation in this area is the use of military logisticians working side by side with humanitarian logisticians and being mutually supportive. Examples include Irish military logisticians in Haiti working for the WFP, Australian Army logisticians in Sudan and Nigeria working alongside UN relief workers on some UN projects, and military logisticians in Somalia training and managing the supply chains of relief food distributions with UNICEF. Furthermore the use of outsourcing and partnering agreements will most likely increase in the future (Listou, 2011). Hence, to ensure efficient and effective logistics support in operations, the ability to work closely with commercial actors will be a critical asset.

Conclusion

The four principles of humanity, neutrality, impartiality and independence are absolutely fundamental for the self-definition of humanitarian aid agencies. They form the core of their value systems as well as an important part of their *raison d'être*. On the face of it, therefore, the options for cooperation with military forces seem, at best very limited, if not to say impossible. Ironically, those international NGOs that are currently best positioned to cooperate in terms of advanced logistics and supply chain capabilities are also the ones that are most 'humanitarian' and therefore often exclude such cooperation on fundamental principles.

Thus, until and unless there is a further significant shift in thinking within such organizations, academics as well as military and political leaders would be well advised not to invest too much hope on the viability, as well as the sustainability, of a fully integrated logistics and supply chain interface between military organizations and humanitarian NGOs.

That said, the establishment of an effective humanitarian/military logistics interface is most likely to take place in the emergency phase following a sudden-onset, large-scale, high-impact natural (or technological) disaster as it is on such occasions that the time imperative clearly underpins the enormous potential benefit inherent in military supply chains and their associated equipment and personnel. It follows that humanitarian aid agencies and NGOs that would be willing to enter a temporary supply chain partnership with armed forces should prepare for this scenario through, for example, prior discussion of roles and responsibilities, training exercises and scenario planning.

It may well be that, as a result of positive interactions in such a scenario, aid agencies may feel emboldened to develop a broader relationship that also spans some of the other types of disaster/emergency outlined above – and, in doing so, take positive steps to 'alleviate the suffering of vulnerable people' (Thomas and Kopcak, 2005: 2).