

Civil-Military Coordination in Humanitarian Logistics Responses to Natural Disasters

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This research investigates civil-military coordination (CIMIC) in humanitarian logistics through a study of two natural disasters: the Pakistan Earthquake of 2005 and Typhoon Haiyan in the Philippines in 2013. There is increasing and common military involvement in the humanitarian response to disasters, yet CIMIC remains under researched despite reports of challenges. Analysis of 115 reports over two disasters shows four factors have emerged for consideration including coordination and collaboration among civilian and military actors, the focus considering military capacities, different applications of terminology and the diverse approaches in reporting military assistance provided.

Track: 20 Operations, Logistics and Supply Chain Management

Development Paper

Introduction

Natural disasters claim thousands of lives annually and in 2019 were responsible for the deaths of 23,000 people (*EM-DAT*, 2020a). These disasters are often unpredictable in location and timing, which makes preparation difficult and requires a supply chain response. The management of humanitarian supply chains is recognised as challenging and, according to Wisetjindawat *et al.* (2014), is one of the most complicated operations within the field of logistics, as reduced response time might have a direct impact on the ability to save lives (Campbell and Knox, 2018).

When a disaster overwhelms the national capacity to respond, the affected state may request or accept international assistance to meet the required demand, meaning support from foreign military forces might be included (Tatham and Rietjens, 2016). The use of military capabilities in response to natural disasters can be considered controversial due to political and ethical issues (Pettit and Beresford, 2005). Humanitarian and military supply chains, however, often confront the same challenges, such as chaotic environments, a lack of stability, and limited working resources, coupled with harsh working conditions where flexibility is important (Davidson, 2006; Barber, 2013). Military logistics elements are trained to operate within these contexts (Barber, 2013). As a research area, civil-military coordination in natural disasters is in its infancy (Heaslip and Barber, 2014).

The military can support disaster response in three key ways: in the form of direct assistance which supports distribution of goods and services; indirect assistance such as logistics support for moving relief products and staff; and infrastructure support such as facility repair and other general services (OCHA, 2007, p. 7).

Military involvement in relief operations is not a new phenomenon, though there has been an increased contribution from military organisations since the 1990s (Hofmann and Hudson, 2009). The contribution in general is considered positive, but there are criticisms and challenges associated with military involvement. The primary role of the military is to fight wars and defend countries, which is in strong contrast with providing humanitarian assistance (Pettit and Beresford, 2005). Differing agendas and fundamental organisational differences are

according to Heaslip (2012) the main reason why Civil-Military interactions are more difficult than coordination among homogeneous organisations. Coordination amongst civil and military organisations are addressed as potentially the greatest challenge when military forces are deployed to assist crises, but face different cultures and operational concepts in working with civilians (Homan, 2008; Wiharta *et al.*, 2008a). Haugevik and de Carvalho (2007) further discuss the divergent terminologies used, with Heaslip and Barber (2014) recognising the wider impact of language and communication as a barrier to effective civil-military coordination (CIMIC).

Purpose

Consequently, this study will investigate military involvement in natural disasters through an assessment of CIMIC in two widely reported natural disasters; the Pakistan Earthquake (2005) and Typhoon Haiyan (2013). In the response to both natural disasters, there was significant military involvement.

Research Approach

As there are some qualitative explorations of CIMIC, we decided to focus on secondary data reporting to see how CIMIC is reported by both civilian and military actors. Humanitarian organisations annually publish reports regarding their contribution to humanitarian operations and these are freely available on digital sources. Secondary data analysis is considered by Krippendorff (1989) to be one of the most relevant research techniques within the field of social science as content analysis facilitates exploration of other researchers' work and establishes new ways of approaching the data.

In qualitative content analysis, as we employed here, the sampling should be specific, and the coding should come from gaining understanding about the context of the study (White and Marsh, 2006). White and Marsh (2006) further discuss that qualitative content analysis aims to understand the "big picture" of a given phenomenon, and underline that the codes and analysis often emerge from the initial phase where the researcher reads through the data and starts to see patterns, similarities and alternative perspectives in uses of the reporting. This technique was also applied in this study, where one researcher started off with reading and coding all reports to gain an initial understanding of the data, resulting in different codes being generated. After analysing the data, the result is often an in-depth view of the phenomenon researched (White and Marsh, 2006).

Data was sampled from OCHA, NATO and the US Military reporting to gain an in-depth understanding of the military involvement in these disasters. In the Philippines, the US Military had a significant contribution to disaster response. Since the US Military does not publish their situation reports on open sources, data collection for the US Military reporting relies on publications from the US Department of Defence (US DoD). For OCHA, the focus was to analyse situation reports published in the period NATO or the US Military assisted in the disasters, together with annual reports from 2005, 2006, 2013 and 2014. Annual reports from two periods are included as both disasters happened in the autumn, and continued over to the next year's reporting period. All reports from OCHA have been collected from Reliefweb, which is a service provided by OCHA. All reports and publications from the above mentioned sources are included from the date of the disaster to the redeployment, for both OCHA, NATO and the US Military. Tables 1 and 2 show the secondary data that was analysed for both disasters.

Table 1 - Data collection: Pakistan Earthquake (2005)

08.10.05-01.02.06	OCHA Situation reports	OCHA Annual reports	NATO reports	NATO webpage	Total number of reports
Pakistan 2005	35	2	23	1	61

Table 2 - Data collection: Typhoon Haiyan, Philippines (2013)

08.11.13-01.12.13	OCHA Situation reports	OCHA Annual reports	US DoD publications	US Military report	Total number of reports
Philippines 2013	20	2	31	1	54

In addition to the secondary sources already noted, the Oslo Guidelines were included throughout the analysis, as these documents define how CIMIC should be conducted.

Findings

In 2005, a devastating earthquake hit Pakistan resulting in over 73,000 deaths and over 3.5 million people were left homeless. In response to this disaster, over 200 organisations were involved in the relief work, including the Government of Pakistan, UN, EU, NGO's and NATO (OCHA, 2005a). Eight years later, in 2013, Typhoon Haiyan hit the Philippines, resulting in the death of more than 6,000 people, and over four million people were left homeless. Following secondary data analysis of reports on these disasters, four factors have emerged for consideration including coordination and collaboration amongst civilian and military actors, the focus on military capacities, different use of terminology and the contrasting approaches in reporting regarding the military assistance provided.

Reports on the crisis in Pakistan mention that there are challenges in CIMIC but specifics of these challenges are not provided. When investigating military involvement in Pakistan and the Philippines, the focus regarding coordination and collaboration among stakeholders is not clearly defined. General statements on coordination and collaboration appear in reports but lack details of what this meant in practice during the humanitarian response. There are consistencies in contributions not being recognised which highlights issues in the clarity of reporting. In both cases analysed, the military contribution is under-communicated when considering 'civil' elements of reporting, which might influence the level of coordination and collaboration over time. Military reports (NATO and US DoD) provide details of the capacity of the military to respond in key areas (transport provided, supplies delivered and evacuation of those affected) but this is not detailed in civil reporting. Specific contributions appear in NATO reports, e.g. NATO EADRCC (2005c, p. 1) states in report number 15, that NATO "*in close cooperation with all parties involved has airlifted more than a 1,000 (thousand) tons of emergency relief goods to Pakistan earthquake survivors*". Yet in civil reporting specific examples are lacking and a brief statement on military response appears: "*In Pakistan, the military was well-positioned to respond, and United Nations coordination ensured that the military were granted access to politically and militarily sensitive areas, such as Pakistan-administered Kashmir – where prior to the earthquake, access had been tightly controlled*" (OCHA, 2006, p. 37).

Language and communication has been recognised as a barrier (Heaslip and Barber, 2014) and this was evident in assessing the data. Direct assistance is underplayed and instead reports often refer to indirect assistance if reviewing civil reporting whereas military reporting will articulate incidences of both direct and indirect assistance. It emerged from analysis of reports, that civil and military actors use different terminology, which again might negatively influence the collaboration between the different stakeholders and potentially compromise operations. Cooperation is highlighted in both civilian and military guidelines as the highest level of

interaction, but the Oslo Guideline (OCHA, 2007) does not provide information regarding the meaning of the term.

Relevance/contribution

The frequency and severity of natural disasters continue to increase and even with the Covid-19 pandemic, civil and military coordination has been required. Although there are challenges recognised with CIMIC, the infancy of this research base and the increase in reporting means there is scope to use secondary sources to identify where there are issues in reporting and language use which can affect coordination and communication during humanitarian crises. This means frameworks can be developed and consistently applied to improve CIMIC.

References

Barber, E. (2013) 'Military involvement in humanitarian supply chains, in Kovács, G. and Spens, K. (eds)', in *Supply Chain Management: Concepts, Methodologies, Tools and Applications*. IGI Global, pp. 1371–1392.

Campell, L. and Knox, P. (2018) 'Making operational decisions in humanitarian response: A literature review'. London: Alnappaper. doi: 10.13140/RG.2.2.22634.82883 (Accessed: 1 June 2020).

Davidson, A. L. (2006) *Key Performance Indicators in Humanitarian Logistics*. MSc Thesis, Massachusetts Institute of Technology. Available at: <https://dspace.mit.edu/bitstream/handle/1721.1/35540/72823316-MIT.pdf?sequence=2&isAllowed=y>

EM-DAT (2020a) *Database*. Available at: <https://public.emdat.be/data> (Accessed: 5 June 2020).

Haugevik, K. M. and de Carvalho, B. (2007) 'Civil-Military Cooperation in multinational and interagency operations', *Security in Practice*, 2, pp. 1-25.

Heaslip, G. (2012) 'Challenges of civil military cooperation / coordination in humanitarian relief', in Kovács, G. and Spens, K. (ed) *Relief Supply Chain Management for Disasters: Humanitarian, Aid and Emergency Logistics*, pp. 147–172.

Heaslip, G. and Barber, E. (2014) 'Using the military in disaster relief: systemising challenges and opportunities', *Journal of Humanitarian Logistics and Supply Chain Management*, 4(1), pp. 60–81.

Hofmann, C.-A. and Hudson, L. (2009) 'Military responses to natural disasters: last resort or inevitable trend?', *Humanitarian Exchange Magazine*, (44), pp. 29–31.

Homan, K. (2008) 'Military Support to Civilian Authorities', *NATO's 2008 Civil Protection Committee Seminar: Civil-Military Cooperation and Interaction*. Sibenik, Croatia, 1-2 October. Available at:

https://www.clingendael.org/sites/default/files/pdfs/20081000_cscp_art_homan_armex.pdf

Krippendorff, K. (1989) 'Content Analysis', in Barnouw, E., Gerbner, G., Schramm, W., Worth, T.L., & Gross, L.(ed) *The International Encyclopedia of Communication*. New York: Oxford University Press, pp. 404–407.

OCHA (2007) *Oslo Guidelines: Guideline on the Use of Foreign Military and Civil Defence Assets in Disaster Relief*. Available at: [https://www.unocha.org/sites/unocha/files/OSLO Guidelines Rev 1.1 - Nov 07_0.pdf](https://www.unocha.org/sites/unocha/files/OSLO%20Guidelines%20Rev%201.1%20-%20Nov%2007_0.pdf) (Accessed: 1 June 2020).

Pettit, S. J. and Beresford, A. K. C. (2005) 'Emergency relief logistics: an evaluation of military, non-military and composite response models', *International Journal of Logistics Research and Applications*. Informa UK Limited, 8(4), pp. 313–331.

Tatham, P. and Rietjens, S. B. (2016) 'Integrated disaster relief logistics: A stepping stone towards viable civil-military networks?', *Disasters*, 40(1), pp. 7–25.

White, M. D. and Marsh, E. E. (2006) 'Content analysis: A flexible methodology', *Library Trends*, 55(1), pp. 22–45.

Wiharta, S. *et al.* (2008a) 'The effectiveness of foreign military assets in natural disaster response', *Stockholm International Peace Research Institute*.

Wisetjindawat, W. *et al.* (2014) 'Planning Disaster Relief Operations', *Procedia - Social and Behavioral Sciences*. Elsevier BV, 125, pp. 412–421.