

Coordination at the 10-year mark of the JHLSCM—from global response to local preparedness

Coordination at
the 10-year
mark

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Received 24 June 2021
Revised 7 July 2021
Accepted 7 July 2021

Abstract

Purpose – At the inception of the *Journal of Humanitarian Logistics and Supply Chain Management* (JHLSCM), logistics coordination was identified as important, both in practice and research, but few studies on the topic had been published. Ten years later, many, if not most, papers in the journal mention the topic. So the picture has changed, but to what extent? This paper discusses how coordination research has followed humanitarian logistics practice and vice versa.

Design/methodology/approach – The point of departure in the present article is the most salient topic from the study's original papers (Jahre *et al.*, 2009; Jahre and Jensen, 2010). The authors discuss how these topics have developed in research and practice. A recent literature review (Grange *et al.*, 2020) enables us to pick relevant papers from JHLSCM and supplement them with more recent ones. The authors complement this approach with updated data on the cluster system, particularly the logistics cluster, to add insights from the empirical domain.

Findings – In practice, the cluster concept has developed from coordination within clusters in response to the inclusion of inter-cluster coordination in preparedness, and more recently a focus on localized preparedness. However, JHLSCM research does not appear to have kept pace, with a few notable exceptions. The majority of its papers still focus on response. To the extent that preparedness is covered, it is primarily done so at the global level.

Originality/value – The authors use a framework to discuss humanitarian logistics coordination research and identify important gaps. Based on developments in practice, the study's key contribution is a revised model with suggestions for further research.

Keywords Coordination, Cluster system, Conceptual, Research agenda

Paper type Research paper

1. Introduction

Coordination has been and continues to be one of the mainstay topics in humanitarian logistics. The *Journal of Humanitarian Logistics and Supply Chain Management* (JHLSCM) is a good example of this popularity. Out of approximately 200 articles published since the inception of the journal, a simple search on the word “coordination” yields 163 results, although the main contribution of each article might not relate directly to coordination. In this



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Journal of Humanitarian Logistics
and Supply Chain Management
Vol. 11 No. 4, 2021
pp. 585-598
Emerald Publishing Limited
2042-6747
DOI 10.1108/JHLSCM06-2021-0051

sense, we might say that coordination in humanitarian logistics, at least at a surface level, is now a well-established and mature topic.

This was not the case at the journal's inception. When we published articles on theoretical development and cluster coordination 10 years ago (Jahre *et al.*, 2009; Jahre and Jensen, 2010), the specific research in the field was limited and there was a great need for new and suitable frameworks, as well as empirical research. Ten years later, the picture has changed, but how much?

The purpose of this paper is to discuss how the research on coordination has followed the practice in humanitarian logistics or vice versa. To this end, we use the development of the cluster system as our empirical case to show which research issues still need more attention. Particularly, we cover two important dimensions: preparedness versus response and to what extent focus has been on the global versus the local level.

Our point of departure is the most salient topics from the original papers and how these topics have developed in research and practice. A recent literature review on coordination already exists (Grange *et al.*, 2020), enabling us to relatively easily pick relevant papers and supplement them with more recent ones. We complement this with updated empirical material on the cluster system, particularly the logistics cluster, to add insights from the empirical domain. Our ambition and approach are conceptual in nature, allowing us to comment on remaining gaps and future directions.

2. Clusters in practice

Targeting logistics specifically for coordination started with the United Nations Joint Logistics Centre (UNJLC), which was employed specifically to coordinate logistics issues in humanitarian relief operations and institutionalized by the UN in 2002. The UNJLC was gradually superseded by the cluster system from 2005 onwards and in 2008 it was formally merged into the Logistics Cluster. Clusters were introduced to improve efficiency in the five following key areas (OCHA, 2007):

- (1) Sufficient global capacity to meet current and future emergencies
- (2) Predictable leadership at a global and local level
- (3) Strengthened partnerships between UN bodies, non-governmental organizations (NGOs) and local authorities
- (4) Accountability, both for the response and vis-à-vis beneficiaries
- (5) Strategic field-level coordination and prioritization

Its first application occurred when nine clusters were established within 24 h of the 2005 earthquake in Pakistan. Since then, two evaluations of the approach have taken place (Stoddards *et al.*, 2007; Steets *et al.*, 2010). Based on this, the IASC Transformative Agenda was established (IASC, 2012).

Originally termed the Logistics Cluster Cell, the focus of the logistics coordination effort was on operational support once disasters had occurred. Following the Logistics Cluster evaluation (Majewski *et al.*, 2012), its strategic plan 2013–2015 was developed (GLC, 2013). The attention was still on operational support in response, although preparedness was arriving on the agenda. However, local preparedness was considered to be beyond their capacity: “The ability of the Logistics Cluster to conduct operations, participate in targeted preparedness actions, or engage with partners at the global level to formulate consensus is restricted by: (1) The obligation to respond in a timely way to unpredictable new, as well as on-going emergencies; (2) The availability of funding; (3) The size, composition, and expertise of the Logistics Cluster Cells.” The key was to “Ensure that the regular activities of the Global

Logistics Cluster Support Cell are continued, including maintaining field support and existing levels of deployment capacity; maintaining engagement with partners at the global level in terms of coordination and training; and supporting limited preparedness initiatives at current levels.”

A footnote shows the discussions on developing local preparedness at the time, stating that “Some stakeholders question whether the GLC has a mandate for building national preparedness capacities, however, the November 2006 IASC Guidance Note on Using the Cluster Approach to Strengthen Humanitarian Response states, ‘Where appropriate, sector leads should promote training and capacity-building initiatives, particularly in terms of strengthening the capacity of local authorities to provide leadership.’ This recommendation should lead to a clearer definition of where and when it is appropriate for the GLC to provide such national preparedness assistance and what this entails” (Logistics Cluster Strategic Plan, 2012–2015 in [GLC, 2013](#), p. 12).

The original cluster approach was about coordination between organizations *within* the specific sectors; for example, water and sanitation organizations in the Water Sanitation and Hygiene cluster. However, it soon became evident that coordination *between* the clusters was lacking: “A more fundamental barrier to addressing cross-cutting issues stems from weak inter-cluster coordination, including inadequate information management and analysis” ([Stoddard et al., 2007](#), p. 40). Eventually, inter-cluster coordination came onto the agenda: “Guided by the Humanitarian Country Team (HCT), inter-cluster coordination provides a platform for clusters to work together to advance the delivery of assistance to affected people effectively and efficiently. It does this by encouraging synergies between sectors, ensuring roles and responsibilities are clearly defined, closing potential gaps, and eliminating duplication” ([IASC, 2015](#)).

At the same time as the focus on inter-cluster coordination was increasing, preparedness was climbing up the agenda through a new logistics cluster strategy. The original version ([GLC, 2016–2018](#)) made no mention of localization, but did state that it is important to “Create awareness on the importance of logistics preparedness and on the Logistics Cluster role in emergencies” (p. 7). The term *localization* was not used until the Field Based Preparedness Project (“the Project”) came into being in 2020 ([FBPP, 2020a-i](#)): “The objective is to catalyse the strengthening and localisation of national humanitarian logistics by empowering national responders and promoting partnerships and long-term collaborative approaches. Where an active IASC Logistics Cluster operation is present, upon its deactivation the Project might be initiated as a means to transition into preparedness and capacity strengthening. This leverages momentum relationships and established coordination platforms across the response community and allows identified logistics response gaps and bottlenecks to be addressed in a sustainable manner”. Preparedness projects are now ongoing in Bangladesh, Cambodia, Colombia, Haiti, Iraq, the Lao People’s Democratic Republic, Madagascar, Malawi, Mozambique, the Pacific Region, the Philippines, Sierra Leone and Zimbabwe (<https://logcluster.org/>).

To summarize, [Figure 1](#) provides an overview of the key phases in the cluster development, focusing on the logistics cluster.

To conclude this section, we see that the concept ([GLC, 2020](#)) has developed from coordination within clusters in response to also include inter-cluster coordination in preparedness, and more recently a focus on localized preparedness. It will be interesting to see how this will be formulated in the strategy going forward. Our question, then, is how has humanitarian logistics *research* followed up this change in practice?

3. The state of the theory

The literature review encompasses two areas: humanitarian logistics coordination in terms of the main streams with relevance to our starting point and the clusters themselves.

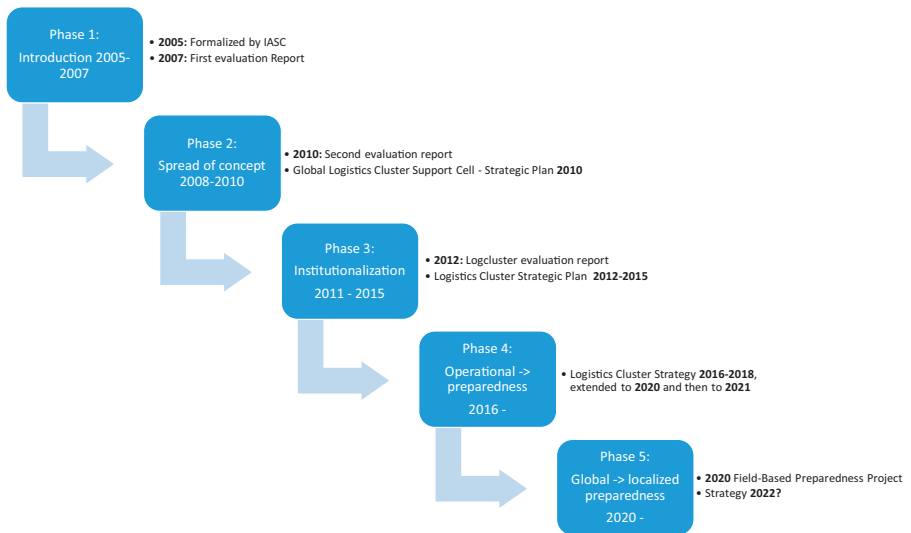


Figure 1.
Development of the
cluster concept

3.1 Coordination in humanitarian logistics

The importance of coordination seemed clear from the start. However, there were challenges in using the term among practitioners, and other terms such as collaboration and cooperation were used interchangeably (Jensen, 2012; Bealt *et al.*, 2016).

At the time of the two studies, just over a decade ago (Jahre *et al.*, 2009; Jahre and Jensen, 2010), the literature on coordination in humanitarian logistics was very limited. This meant that a logical starting point was to approach actors in the field to inductively identify and explore the most pressing coordination-related issues. This led us to review the literature on supply chain coordination in general and to a first line of thinking on relevant theory. Jahre *et al.* (2009) suggested that three important dimensions were permanent and temporary networks, decentralization, centralization and—notably—horizontal and vertical coordination. Jahre and Jensen (2010) drew on this thinking and suggested important dimensions to be vertical (or pipeline) and horizontal coordination, both within (functional) and among the clusters. A major point in the early work was that strong attention to the functional coordination could come at the cost of weaker coordination among the clusters and that mechanisms must be found to improve this. In terms of the vertical dimension, emphasis was placed on the need to coordinate the supply chain from one response to the next, dealing with the entire affected region.

Considering the subsequent literature, three areas can be identified—operational coordination, preparedness and localization—can be identified, with a rough temporal dependence.

The *operational area* corresponds to coordination issues in the response operation itself. Typical issues, such as which organizations carry out what activities and where, must be solved in any operation. The large number of involved organizations and inherent features of the context such as uncertain needs and damage to infrastructure, exacerbates the coordination challenges. Early solution mechanisms such as the UNJLC picked some of the most essential coordination tasks and assigned them to ad hoc groups based on improvised

resources (Jahre *et al.*, 2009). Subsequently, and partially with the clusters, the attention moved on to lead organizations with a clear responsibility.

Alternative approaches were also suggested, such as the use of Logistics Service Provider (LSP) to take over significant coordination tasks in humanitarian logistics, perhaps best represented through the idea of a 4PL (Abidi *et al.*, 2015; Jensen, 2012; Vega and Roussat, 2015). Some authors found potential for outsourcing tasks in humanitarian logistics to LSPs in general, but also considerable skepticism, especially for tasks that would imply more control for the LSP (Bealt *et al.*, 2016; Gossler *et al.*, 2019). Others suggested that the role for commercial actors should be considered in a broader sense (Kaneberg, 2018; Medel *et al.*, 2020), while some focused more on the specifics of the coordinators themselves (Akhtar *et al.*, 2012). Finally, the idea of choreography has been presented as a more decentralized solution where organizations adapt more dynamically to each other using contemporary information technology (IT) tools and common understanding in a community of learning context (Grange *et al.*, 2020; Mutebi *et al.*, 2020).

The *preparedness area* deals with the time before or between operations. The overall challenge is that a dollar spent in preparation saves several dollars in an actual operation, but funding is often a challenge (Jahre *et al.*, 2016; Lewin *et al.*, 2018). Several approaches have been suggested for preparedness. One is to conceptualize preparedness in terms of resilience (e.g. L'Hermitte *et al.*, 2016). Jahre (2017) considered preparedness in terms of supply chain risk and showed at least ten different risk strategies in empirical studies within humanitarian logistics. These form a subset of the strategies seen in the supply chain risk management literature. Notably, risk strategies that focus on holding strategic stock can be costly and better approaches might involve increased flexibility. Prepositioning of stock can be carried out in the context of postponement where supplies are not necessarily labeled until they are needed (e.g. Jahre and Heigh, 2008), creating a baseline of coordination for the humanitarian organizations as a whole. Indeed, prepositioning has received considerable attention, with more well-developed quantitative decision support systems (e.g. Di Pasquale *et al.*, 2020).

Another approach is exemplified by Jensen and Hertz (2016), who suggested developing clearer roles for actors such as NGOs to reduce the need for coordination during the response itself. If actors have already defined what they can provide and how they will act during the response, it reduces the need for extensive coordination once the response becomes a reality.

Finally, the *area of localization* has come under more scrutiny but with little research so far. Whereas global prepositioning refers to the placement of stocks, localization deals with involving local actors in the response, or leaving it to them to lead, and supports them in developing their own logistics preparedness. Since such local actors have superior local knowledge and potentially better contact with actual needs, the benefits seem obvious but the topic has been intractable. Indeed, Frennesson *et al.* (2020) found quite different attitudes to the development of more localization in humanitarian logistics, from decentralization, partial transfer, full transfer to continued centralization representing the status quo. Although most respondents in the study were positive about decentralization and transferring activities to local actors, more extensive implementation of this thinking remains. Wood and Frazier (2020) addressed the underlying models of aid provision in terms of centralization and decentralization (that is, localization), but this thinking has yet to be more developed in terms of supply chain coordination.

We should note that the separation into three areas is, to some extent, a device of convenience; for example, a lead organization can play an important role both in preparedness and operations, as is seen in the case of the logistics cluster, and an LSP could play different roles at several points in a response (see, e.g. Falagara Sigala and Wakolbinger, 2019). There are many examples of deeper exploration of how to coordinate such detailed issues as air traffic control (Veatch and Goentzel, 2018) or volunteer

assignments (Garcia *et al.*, 2018). Here, however, we retain the focus on what to coordinate and, to a certain extent, on what actors are involved.

3.2 Clusters in academic research

In their editorial when *JHLSCM* was launched, Kovács and Spens (2011) stated: “A striking feature of humanitarian logistics is the focus on co-opetition. Efforts are joined in practice in the establishment of purchasing consortia, joint hubs, *clusters*, and communities of practice in logistics” (p. 9; emphasis added).

Given that humanitarian logistics has generally focused on coordination, and particularly in *JHLSCM*, one would expect a key coordination mechanism such as the cluster to receive significant attention from researchers. However, while we identified 113 papers when searching for “cluster” in *JHLSCM*, there are surprisingly few empirical studies. We identified 14 notable exceptions (Table A1). The remaining 99 papers either use or refer to clustering as part of their research techniques; refer to a few information sources from the clusters; refer to or use information from/on other types of clusters; refer to papers in the table, for example when discussing coordination, but without going into the cluster concept; or refer to clustering of logistics activities, such as vehicles or warehouses, but not the cluster concept itself. Finally, the few papers that discuss or mention the cluster as part of the humanitarian system do so in connection with coordinating *response*, not preparedness. The last column in Table A1 lists relevant findings on the two key dimensions we have looked at: preparedness versus response and global versus local level.

Based on Table A1, we can conclude the following. One paper focuses on preparedness, while most of the others focus on response with some on both. Among the papers on preparedness, two discuss local as well as global capacity, the remaining focus on the global level. When it comes to research approach, most papers are literature reviews and/or conceptual. Empirical papers are based solely on interviews. We found no “mixed-methods” papers, for example, in terms of case studies combined with modeling or other analytical techniques. Other parts of the humanitarian logistics research increasingly use such approaches, partly to provide explanatory and normative evidence and advice to practice.

4. Concluding discussion, identified gaps and suggested further research

In a broad sense, the empirical focus on the clusters moving from response to preparedness and lastly localization is matched by the literature. The majority of the papers deal with coordination during the response, and far fewer papers deal with coordination in the preparedness phase. So far, the attention to the issue of localization has only resulted in a couple of papers that deal with coordination. However, it should be noted here that we have focused on papers published in *JHLSCM* and that localization in terms of local capacity building has been covered substantially in other journals, for example within development and disaster risk reduction (e.g. Hagelsteen *et al.*, 2021; Kuipers *et al.*, 2019).

The 2010 model, as shown in Figure 2, essentially outlined several dimensions and made these more concrete in terms of cluster coordination. Vertical and horizontal coordination remain important and have also been used in more recent work (Grange *et al.*, 2020). However, the model is rather static overall and has some weaknesses. For example, the levels of coordination—operational, tactical and strategic—have some foundation in literature, but do not describe more recent developments such as localization very well. Nor does the model really speak to the phases of an intervention. Although the level of coordination dimension could be developed, here we suggest that the model from Jahre *et al.* (2009, Fig. 1, p. 3) is more promising in terms of capturing the developments identified in Section 3. This model consisted of three dimensions with two alternatives for each—the network (permanent and

		Type of coordination			Level of coordination
		Horizontal		Vertical	
		Within cluster	Among clusters	Among clusters	
Operational	Organizations in a cluster cooperate in an operation	Cooperation among different clusters in an operation	Pipeline for an operation is coordinated among participants		
Tactical	Organizations in a cluster cooperate at the regional level	Clusters cooperate at the regional level for storage, capacity	Storage and distribution from a regional level		
Strategic	Global capacity building, standards for a cluster	Global assessments, inter-cluster standards	Purchasing, global stockpiles and pipelines to affected regions		

Source(s): Jahre and Jensen (2010, Table 2, p. 668)

Figure 2.
Types of coordination

temporary), coordination (vertical and horizontal) and the structure (central and decentral). An update of the model is timely and we present a suggestion here based on the concepts used in theory and practice and where we have used different marking to show where the humanitarian logistics focus on coordination has been until now.

The coordination dimension can be retained as vertical and horizontal, but the literature has expanded on both dimensions. The horizontal dimension consists of functional or within-cluster coordination and inter-cluster coordination (an issue that has received little attention). There is potentially also coordination beyond the clusters with other organizations or coordination bodies working at the same level. The vertical dimension does refer to the pipeline from stocks of emergency replies but should also reflect global humanitarian supply chains all the way to sourcing. In this sense, there is both a distribution pipeline into the affected area but also an inbound pipeline. Depending on how the system is organized and the size of an intervention, this inbound pipeline can be critical, since stocks of emergency supplies seldom meet the needs.

The main weight of research has dealt with functional coordination in terms of the different sectors (or clusters) in the field, as well as the role of the lead organization, whether it is the cluster or another type of organization altogether, such as an LSP. There has been considerably less focus on how to make sectors or clusters work together, and the supply chain management idea of coordinating the vertical supply chain to serve the end customer (or recipient) has not received a great deal of attention. The idea of self-organization (choreography) is relatively new and should also be explored. Finally, the question of “how” to coordinate in terms of what specific mechanisms work well in which context should receive more attention. The use of technology and availability of (big) data will be important in developing new mechanisms, but we suggest that the development should start with the coordination mechanisms rather than the tools.

The second dimension of the model is the network and its permanent and temporary nature in terms of preparedness and response. The preparedness network deals with activities between interventions and is the basis for mobilization and the performance of the network in an actual intervention. While some research has been carried out on preparedness and the issue of coordination, it appears to be fairly limited. Some literature points to the

importance of involving actors in the planning stage to involve them in the actual response, and the idea of capacity building is important for strengthening response. The idea of developing clearer roles to build preparedness at a more conceptual level has been raised. The area of prepositioning is strongly related to thinking around preparedness, and the idea of moving stock to good locations ahead of time is appealing. However, as seen in Section 3, prepositioning is not always the answer and can add costs to the supply chain. Furthermore, preparedness can also be about building in supply chain flexibility, an issue that deserves more attention. Costs of building higher inventory should be contrasted with the cost of building in more flexibility or faster supply chains, and this type of issue could be addressed with more model-building approaches. It would also combine well conceptually with recent work within resilience.

Finally, the structure dimension, which originally consisted of centralization and decentralization, lent itself to considering, for example, the placement of regional depots as a form of decentralization. At the same time, elements of the cluster system did centralize some important tasks globally to develop common standards and operating procedures within the humanitarian community. These developments were dominated by the larger international organizations. The more recent discussion concerns a type of localization, which involves and strengthens local actors to a different degree. In fact, Frennesson *et al.* (2020) excluded decentralization as a form of localization, keeping the latter for transfer of capacities from international organizations to local actors outside of their own country office. Hence, the revised model in Figure 3 uses the terms *globalized* and *localized* instead of *centralized* versus *decentralized*. While much of the aid system is still quite globalized, the ongoing change toward localization (Wood and Frazier, 2020) would have major implications for coordination practice and future research. Consequently, a broad range of research topics on localization remain, particularly empirical research on the involvement of local resources. We suggest that both case studies and mixed method research study coordination mechanisms and their performance. It is still an open question as to what such coordination and involvement would look like when working well, and the consequences for the intervention overall.

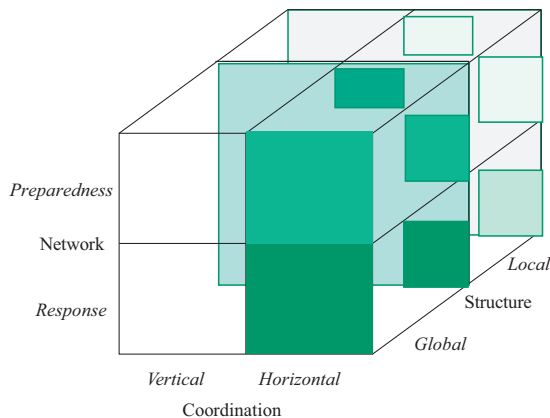


Figure 3.
Three dimensions as
basis for development

Source(s): Adapted from Jahre *et al.* (2009)

A notable point in terms of the framework is that the network is described in terms of preparedness and response, and the structure dimension in terms of the local and global. At the same time, the structure dimension deals with relationships and processes. We suggest that the Industrial Marketing and Purchasing (IMP) literature (Håkansson and Snehota, 1995, 2006) and its ARA model describing actors, resources and activities, including their connections, might be a promising way to expand the understanding of the structure dimension.

Expanding on and classifying the research gaps, we can formulate general questions that follow the updated dimensions of the model, as an additional guide to develop more specific research.

Table 1 focuses on horizontal coordination both within and between clusters and organizations, while Table 2 shows the combinations of vertical—along the supply chain—coordination with local and global.

These two tables represent a selection of what we find are salient questions in the current setting. The most pertinent questions are seen to change over time, resulting both from the research that is done and because of the changing nature of humanitarian logistics. As such, we suggest the updated model should be considered as a framework to guide research on coordination rather than a static list of topics. We should also note that the nature of the research needs to be broadened to include more mixed-method research and more quantitative approaches. There is a general lack of empirically based studies, and the existing studies that are empirically based typically stick to case studies and interviews.

Overall, we can say that the research on coordination in humanitarian logistics has followed some of the main developments, as seen in the practice. However, we cannot say much about how research and practice build on each other based on the study we have undertaken. This could also point in the direction of more longitudinal studies to see how concepts are introduced and adapted in the field. Due to our focus on *JHLSCM* publications, our study only represents a limited part of ongoing humanitarian logistics research. Through this paper, perhaps we can challenge others in our research community to extend this review by including other journals and expand on the dimensions included in the model.

	Localized	Globalized
Preparedness	How can preparedness be anchored so that organizations cooperate locally?	How can global standards and capacity be built while involving a broad base of actors?
Response	How can local resources be both involved and used in an intervention (especially early on)?	How are the organizations in an operation supported by global resources?

Table 1.
Horizontal
coordination vs
network and structure

	Localization	Globalized
Preparedness	How can supply chains connect better to reinforce local resources when needed?	How can global supply chains be made flexible enough to connect to where they are needed?
Response	How can the local resources be used to define the needs to ensure the full requirements of recipients are covered?	How should global supply chains be managed in an intervention?

Table 2.
Vertical coordination
vs network and
structure

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Appendix

References	The use of the cluster (concept) in the study	Response vs preparedness	Global vs Localized preparedness	Research design	Key findings of relevance to this paper
Abidi <i>et al.</i> (2015)	Study the role commercial companies as 4th party logs service providers and mention the role of the cluster as info-mediation	Response	NA	Interviews	NA
Aktar <i>et al.</i> (2012)	Study the role of local organizations in cluster coordination	Response	NA (not preparedness even if focus on localization)	Interviews	Find that local organizations successfully cooperated with the cluster
Apte (2020)	Study disaster response readiness and report on logistics cluster lessons learned from cooperating with military	Response and preparedness	Global	Literature review – academic and grey literature	NA
Battini <i>et al.</i> (2014)	Study how clusters support last-mile transportation	Response	NA	Interviews and secondary data	NA
Alp Ertem and Buyurgan (2011)	Suggest an auction-based framework for resource allocation by a coordination platform, e.g. the logistics cluster	Response	NA	Simulation model, no data	NA
Gavidia (2017)	Propose an information technology-based infrastructure that is compatible with the cluster approach	Preparedness and response	Global	Literature review	NA

(continued)

Table A1. Cluster research in JHLSCM 2010–2021

Table A1.

References	The use of the cluster (concept) in the study	Response vs preparedness	Global vs Localized preparedness	Research design	Key findings of relevance to this paper
<i>Gralla et al. (2015)</i>	Document and analyze the case study of a successful humanitarian logistics training exercise: the World Food Programme's Logistics Response Team (WFP's LRT) for the Logistics Cluster	Simulate response (but training is part of preparedness)	NA	Case study based on interviews and observations	Importance of training
<i>Heaslip et al. (2018)</i>	Suggest the logistics cluster as a first wave of servitization in humanitarian logistics	Preparedness and response	"To summarize, logistics service providers are likely to continue to strengthen their value creation in supply chain networks both at global and local levels" (p. 498)	Literature review	"Service catalog that would be available for addressing and filling gaps in logistics services in risk areas but also to build national preparedness – albeit it remains disputed which role the cluster should play in the latter" (p. 506)
<i>Jensen (2012)</i>	Empirical evidence on coordination and the organizations heading the logistics cluster, i.e. the cluster lead	Response	NA	Case study based on semi-structured interviews	The 4PL concept provides a partial and useful match in terms of what the logistics cluster lead does
<i>Lewin et al. (2018)</i>	Case studies of disaster responses conducted in agreement with the global logistics cluster stakeholders	Preparedness	"How the humanitarian community can help disaster-prone countries to strengthen infrastructure and local capacity preparedness including their local logistics networks" (p. 520)	Interviews	(1) Strengthening local response; (2) Markets and cash-based programming; (3) Access to beneficiaries during complex emergencies; (4) Engagement of the private sector in humanitarian operations; and (5) Common services and coordination among humanitarian stakeholders